

Antiquity

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Editorial Notes

FOR some time past these NOTES have been comparatively free from remarks about our domestic affairs. We have refrained for fear of boring our readers, and in normal times we should still refrain ; but the times are not normal. For that reason we ask everyone to read what follows, as if it were a personal appeal from the Editors.



Economic difficulties and political struggles appear to those involved in them to be of immense and far-reaching importance. To live in times of 'Sturm und Drang' may be stimulating to the imagination, at any rate in moments of detachment ; but it is not comfortable. This is merely a personal reaction, probably without much cosmic significance. But although we cannot help thus reacting, there is no need to lose our sense of values. After all there have been many eclipses of civilization in the past, and the ideas that really matter have survived. There have always been found ways and means of handing on the torch of knowledge, even through the darkest ages of history. Those whose business it is to contribute to the advancement of knowledge should not let themselves be stampeded by current events, however startling and personally unpleasant they may be.

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We who are responsible for ANTIQUITY do not intend to be stam-ped. The pursuit of 'useless' knowledge is none too easy in times of affluence; it becomes increasingly difficult when the screw is applied. This process exterminates the weeds; but it reduces the numbers and increases the burden of those who remain.



ANTIQUITY has survived five of the worst years in modern history. It has more than survived; it has grown in strength and vigour and has, we are told, 'become established'. We are glad to hear it, but we should like to know exactly what 'becoming established' means. It conjures up a pleasant vision of resting on one's oars and floating peacefully with the stream—of short hours and repose. Need we say that no journal can be produced on such lines at any time, least of all at the present? Nothing but unremitting personal effort suffices to keep ANTIQUITY afloat and abreast of the current. We have no publisher behind us, no staff to do the hack-work, no subsidy to fall back on (and incidentally to take the punch out of us).



Doubtless our old friends, the original subscribers, already know these facts; but there must be many new ones who do not realize the peculiarly individual free-lance character of ANTIQUITY.



We have no intention, now or ever, of appealing to motives of philanthropy. We claim to give 'good value for money' (a claim that our correspondence endorses); we expect ANTIQUITY to be bought and read only so long as it continues to be interesting and deserves to be bought and read. If it appeared that we were getting dull and losing support for that reason (of which there is not the slightest indication) we should not cast the blame upon our readers, but try and remove the cause. In small matters we have, in fact, greatly profited by friendly criticism.



In return we expect the support of all who approve of ANTIQUITY and its policy, and indeed we do get it in large measure, both from veterans and from the younger generation. The articles printed in the present number and the last prove this. We now ask all those

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who read these words to remember that *never was the continuance of their support more necessary than during the coming year*. There are hard and anxious months ahead for all, not least for the Editors themselves. Every subscription, both old and new, counts—each one is appreciated and means more than perhaps the subscriber realizes. We are by no means in the last ditch, or even near it ; when we are we shall say so, for we have always told the truth about our circulation. But we are not so foolish as to pretend that we have not suffered to some extent from the world-wide depression. Who has not ?



We appeal very earnestly for this continued support, knowing as we do that during 1932 will appear some of the best articles we have ever published. So high indeed is the standard of archaeological and historical work today that there is little difficulty in maintaining our own. We have, for example, the promise of an article by a very well known man of science, describing a new test of racial affinity ; of another on Seleucia, the former capital of Mesopotamia, recently identified by aerial observation ; and of a third on the fortified churches of Transylvania. As a kind of appetizer we publish as frontispiece to this number a photograph we took inside the courtyard of one of these churches, which we visited last summer with the writer of the article.



In the foregoing paragraphs we have given a straightforward account of our present position and future policy. The nature of the response for which we ask will probably be obvious ; but if any doubts should still remain they will be dispelled by the concluding note, which we hope will be read carefully and acted upon.



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Inserted in this number is a renewal form for subscriptions for 1932, and we shall feel much encouraged if our subscribers will make a point of returning this with as much promptitude as they may find convenient. This would be an immense help and save unnecessary expense in having to repeat requests for payment. It will also enable

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us to make with more confidence certain arrangements for our printing order for next year.

There are other ways in which subscribers can help. For instance, they may have friends who would be interested to know of ANTIQUITY and we shall be only too pleased to send particulars, or a specimen number, to each one whose name is suggested. Appeals of this kind have always had favourable results.

The forms mentioned above have been omitted from copies sent to subscribers who have paid in advance or who make their payments through banks.



On the third page of our Cover is printed a list of Articles in certain issues of ANTIQUITY of which we have surplus copies and therefore are able to offer for THREE SHILLINGS each, post paid. As the number is not large we may have to withdraw this offer at an early date.

The Gods of Phoenicia

as revealed by the Poem of Ras Shamra

by CH. VIROLLEAUD¹

formerly Director of Antiquities, Syria

READERS of ANTIQUITY are already² aware that the second campaign at Ras Shamra—that of the spring of 1930—brought to light several new Phoenician texts. Amongst these pride of place must be given to ten fragments representing in all about a thousand lines of a kind of epic poem, whose various scenes are all laid in the world of the gods. The fragmentary state of the poem increases the difficulties of interpretation, which in any case would have been considerable ; nevertheless, by means of the careful analysis of certain episodes we can now form some sort of general conception of Phoenician mythology as it was about the time of the Ramessids and Amenophis (c. 16th–13th cent. B.C.). In the present article I propose to give a summary account of the results of my researches in this direction.

The gods and goddesses thus brought to life again are more than fifty in number. But two stand out from amongst the rest, and these two are precisely those whom one would expect to find holding higher rank in a document emanating from Phoenicia—El and Baal.

The word El means 'god' in Phoenician as in all Semitic languages. When El is accompanied by another word it signifies some individual god ; for example, *el mtm*, the god of the dead. But when El is met with standing alone, it means God, the supreme god, father of gods and men. El is an old man ; he is called *mlk ab anm*, the king, (*melek* or *molok*), Father of Years, that is, the old king. And one can then realize why in Roman times El was compared, if not identified, with Kronos.

¹ This article has been translated by the EDITOR.

² See ANTIQUITY, Dec. 1930, IV, 460–466, and particularly p. 464.

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El lives not in heaven but in a field, the *sad El* or field of God, which is called also *sad Elim*, the field of the gods. This field is situated near the seashore, at the place where the rivers flow out into the ocean. With him live there several other persons, the most important of whom is a goddess called *Ashérat iam*, the Ashéra of the sea; *Ashérat* is that old Canaanite word which has the same general sense as *elat*, goddess; it appears, moreover, that the *Ashérat* of the sea is identical with *Elat*, the goddess par excellence, the wife of El.

Thus the field of god or of the gods seems to be a region adjacent to the land of men. But this field lay *above* the world below, for it was necessary to descend (*ird*) in order to pass from this paradise to the world itself. For the moment it is impossible to define the position of *sad El* with greater precision; one imagines that the Phoenicians themselves had quite vague ideas about it, and that those ideas fluctuated considerably in the course of centuries, in proportion as the bounds of the known world retreated before the discoveries of their navigators. In any case we cannot fail to compare this field of the Phoenician gods with that field, or fields, where dwelt the gods of ancient Greece, situated in an equally indefinite region and well known to us under the name of the Elysian fields.

On the other hand, in oriental mythology there is a person who, though doubtless not the supreme god, himself too lives in a 'distant' region of which little is known except that, just like the Phoenician *sad El*, it lay 'at the mouth of the rivers'. This person is an old man having several different names, of which the oldest is *Hasisatra*, transformed by the classical mythographers into *Xisuthros*. *Xisuthros* has long been compared to the mysterious *El Khadir*³ of Muslim legends who also lives by the seashore and whose name is actually derived from *Xisuthros*, which in turn comes from *Hasis-atra*. Now it is a remarkable fact that in no part of the Muslim world is the hero *El Khadir* held in such esteem as amongst the *Alaouites* (formerly called the *Nosaïris*), that is to say, amongst the inhabitants of the very province of Syria in which *Ras Shamra* is situated; so much so that *El Khadir*, whose fame is still so lively, has many points of close resemblance to *El*, the old god of those northern Phoenicians who occupied the land of the *Alaouites* 3000 years ago and more.

El, as we have just seen, is the supreme god, or the Father of the

³ Popularly known by the name of the Old Man of the Sea.—Ed.

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Gods. He is represented as a king, and an old king, not merely as a man old in years. He is a man, but a man of great stature, or rather of unwieldly bulk, since his hand is said to be as great (literally 'long') as the sea.

This old man, moreover, seems to be tending towards his decline. It is said that his hand trembles and his sceptre wavers. True, he is still consulted, especially when a new king has to be chosen ; but it is not normally his advice which carries most weight. His decisions are discussed by his *entourage*, and particularly by the goddess (or Ashérat) of the sea, who is doubtless his wife. The god is obliged, in fact, to pay great heed to the advice of the goddess, and eventually he falls into line without much argument.

But of all the opponents of El, the most aggressive is a younger and more enterprising god, who openly tries to supplant him ; he is called Baal, that is to say the Master. This conflict, which assumes many different forms, appears as the essential theme in our epic.

Thus there are set in opposition to each other two opposed forces, or two principles, or simply two persons ; and here one must compare Phoenician mythology with other myths of antiquity, and more especially the Phoenician Baal with, on the one hand, Bel-Marduk at Babylon and on the other with Zeus. Moreover the ancients, whose knowledge in this domain undoubtedly reached back further than ours, said that Belos or Baal was Zeus, whilst, as we have seen, El was confused with Kronos.

To speak accurately, Baal is never seen in direct combat or in personal conflict with the old god El. It is rather El who assumes the offensive, doubtless as being the best means of defence ; and his method of attack is to incite against Baal fantastic creatures whose description, summary though it be, recalls certain passages in Ezekiel.

These beings, the creatures of the gods, bear the name of *aquqim* ; they have horns like bulls ; they are as big as the *abbirim*, and they have faces like Baal. Thus there are set in opposition to Baal beings who resemble him at least in face, and who are formidable and doubtless numerous, whilst Baal is alone, or is attended by a single comrade only, called Ben Dagon, the son of Dagon.

The Story of the Combats, or rather the Hunting, of Baal, as it is called, is unfortunately not well preserved. Sometimes it is Baal who wins ; but, in other encounters it is the *aquqim*, who are also called the *okelim* or devourers. It even happens that Baal is overcome and falls like the bull beneath the sacrificial knife. Surely

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one day Baal will finally triumph, but the state of the text does not allow us to say in what circumstances.

However, while the Story of the Hunting of Baal is very incomplete, we possess on the other hand important fragments of a somewhat parallel story describing various incidents in a struggle between two beings, one called Mot and the other Aleïôn or better (without doubt) Aleïôn. The name Mot is generally accompanied by the expression 'the son of the gods', whilst Aleïôn is the son of Baal. Whether by chance or otherwise, this episode or series of episodes relating to Mot and Aleïôn occupies most space in the Poem of Ras Shamra. Mot is in some way the champion of God or of the gods, whilst Aleïôn defends the cause of Baal his father; moreover Baal constantly intervenes in the struggle in favour of his son, and sometimes even, as we shall see, takes his place in the fight against Mot.

Mot and Aleïôn are then both of them sons of gods and of the two greatest gods. They are undoubtedly gods themselves, at any rate in part; they are in any case much more closely related to humanity than are the other gods, since they and they alone amongst the gods are both of them subject to death. When one disappears the other supervenes; the newly arrived is regarded as having killed the departed. The life of the world, not that of men only but also that of the gods, is bound up with these alternating deaths and resurrections of Mot and Aleïôn.

The name Aleïôn tells us nothing about the nature of this person, for it is—or appears to me to be—inexplicable. But we know that Aleïôn rules over clouds, winds and rain, and also that he is accompanied by a troop of wild animals, amongst whom are eight boars. Aleïôn is in short the god of the air, of that transitional region between earth and heavens where are developed the agents which fertilize the soil—that nourishing soil which is personified by Mot, the son of the gods.

The name Mot, on the other hand, is perfectly clear; and even if we did not know what those two letters *mt* stood for in Semitic languages, the meaning of Mot would have been explained by a passage in Philo of Byblos. He was a writer of the 1st century A.D., who composed a history of Phoenicia in Greek, using old documents attributed to a Phoenician priest or philosopher called Sanchoniathon; and this Sanchoniathon lived about the time of the Trojan War, that is to say at the very time when the Poem of Ras Shamra was composed.

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Philo of Byblos relates that the god Kronos had had, amongst the other children of his wife Rhea, a son who died prematurely and who for this reason was called Mouth or Thanatos (death); and the Phoenicians, adds our author, also called this son of Kronos Pluto; this amounts to saying that the Phoenicians of Roman times identified Mot or Mouth with the Pluto of Greek mythology. Pluto is the god of the underworld but also the god who brings forth the plants, fruits, corn—in a word life and wealth.

Now the activity of the nourishing soil is constant and continuous; once the harvest is over and the corn reaped, once Mot is dead, long months must elapse before we shall see the earth budding into green again. This great change can only be brought about if the water of heaven fertilizes the soil; and it is Aleïôn who is to perform this miracle. Life, is, in fact, the outcome of cooperation between Mot and Aleïôn. But this cooperation has nothing friendly about it, as I have already indicated. We shall see this better still from certain instances; and we shall at the same time realize that the nature of the two persons is more complex than it seems at first glance. Here, for example, is a characteristic episode.

Aleïôn, son of Baal, is dead. We do not know how he died, for the opening portion of the tablet has not yet been found. But the fact is that Aleïôn is dead and that the whole of Nature is suffering from his disappearance. But the gods know well that it was Mot who killed Aleïôn; and the sister of Aleïôn, the goddess Anat, is directed to charge him with it and demand satisfaction. Anat goes then to find Mot; she first looses two dogs against the calves and lambs which Mot is herding; then she seizes Mot himself and cries 'Give me back my brother' (*at mt tn ahi*; literally, Thou, Mot give [me] my brother). Mot replies, feigning surprise 'What are you asking for?' He must however have been well aware that since the disappearance of Aleïôn, the breath of life no more inspires the sons of men; the desert encroaches on the sown, and already wild beasts prowl round the outskirts of the towns. Then Mot suggests that the goddess Anat should go and search for pitchers down even into the bowels of the earth. For there are two kinds of pitchers which contain a marvellous liquid by virtue of which the parched earth will be transformed into a verdant plain. Maybe that he, Mot, is not, like Aleïôn, the lord of the waters of heaven, yet will he go and draw from subterranean sources other waters which will perform the same task; he thinks so himself at any rate, and he would like it to

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be so thought. And when he shall have accomplished this, he too will be an Aleïôn. He will have achieved his purpose of dispossessing his rival ; he will be entitled to the same honours, and already he invites the goddess Anat to make everything ready against his return in triumph.

But the gods, guardians of the established order, will not have it so. The goddess of the sun, who is called the Torch of the Gods, comes and announces their decision. Mot is not to try and transpose their parts, or rather to absorb the individuality of Aleïôn. He shall remain what he is ; he shall keep his own personal property—which consists of the plains ‘ without heavens ’, that is to say (in the extremely elliptical style of Ras Shamra), the plains deprived of the water of heaven.

It seems to follow from this simple expression that Mot is not, as one might think, the god of verdant vegetation, but rather the god of the ripe ear. He is the god of autumn, or of summer and autumn, and not of spring. It is Aleïôn who is the god of spring, or of winter and spring. The sequel fully confirms this impression. The gods, in fact, having delivered their judgment, Anat throws herself afresh upon Mot. But she no longer asks him questions ; the time for words has passed ; the sentence is to be carried forthwith into execution, and by the hands of Anat herself. The goddess takes possession of Mot and cleaves him in half by a stroke of the sickle ; she then puts him in a sieve and forthwith casts him upon the fire, doubtless to purify him more thoroughly. Finally, she grinds him between the upper and the nether millstones and scatters his remains over the field ; and she does all this in order to eat his flesh.

Of these five operations, the first four belong to harvest itself, whilst the fifth relates to sowing. Mot is not only the ear that is ground to make bread thereof ; he is also the grain of corn that is stored up, and which contains in its frail sheath the germ of future harvests.

Thus Mot who killed Aleïôn is killed in his turn. But Nature cannot live thus deprived of direction ; and in fact the rebirth of Aleïôn is not long delayed.

In a dream a person called Tapho, whose character is not clearly defined, receives a message from the gods that Aleïôn has come to life again : ‘ Good news ’ he is told, ‘ Aleïôn lives : and now the rain of heaven is about to fatten the earth, whilst the rivers come down in wine ’. Tapho rejoices exceedingly ; he laughs and utters cries of joy, and in his excitement he snaps his fingers.

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However, if Aleïôn has come to life again, no one yet has seen him, not even Tapho. Uneasiness fills the hearts of men and even of the gods too : ' Where is Aleïôn ? ' is repeated on all sides. ' What has become of the son of the Baal of the World ? '

Then the god El orders the goddess of the sun to find out the place where Aleïôn is in hiding, or perchance the prison where his enemies have him fast. The sun, who sees all, should succeed where others might fail. He (or rather ' she ', for the Sun is a goddess) goes then in search of Aleïôn ; and surely she finds him—but the condition of the text does not allow us to say how these things happened.

Shortly afterwards—a year later—the contest begins again no less energetically than before. It is the same struggle, but it is told in other words, for the years are not all alike even in these eastern lands, where however the seasons are sharply divided from each other. It is now no longer the sister of Aleïôn who attacks Mot ; it is no longer Aleïôn in person, it is his father Baal himself. Mot is thrown to the ground, his throne is upset, his sceptre broken ; this time he will remain seven years without reappearing. This long absence doubtless corresponds with a period during which men suffered peculiarly severely, a period of lean kine.

From year to year and from century to century the struggle becomes more bitter. Baal continues to fight in place of Aleïôn, until the day when he falls upon Mot after the fashion of a wild bull with lowered horns ; he bites him like the wild bulls of Bashan. Mot implores help from his father, but in vain. The sun in fact reveals to him that his prayer has not been heeded and that he must die. Then Mot, vanquished, and abandoned by his own people, goes down into the earth to the Lower Regions, to the god of the dead.

But this struggle does not consist merely of a series of incidents repeated indefinitely. It has a limit ; it concludes with the victory of one of the two opponents ; and the conqueror is quite obviously Aleïôn the son of Baal. A whole canto of the Poem—containing 500 lines, a third of which is preserved—was devoted to this victory or exaltation of Aleïôn. At the outset he is greeted with the title of king. Mot doubtless was a king too, for his sceptre and throne are spoken of ; but it was not said of Mot, as of Aleïôn, He is ' our king ' or even ' our judge ' (or more precisely ' our chief magistrate '). God, the god El, grants Aleïôn, in response perhaps to a request, wisdom

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(*hokmot*) and also, it appears, knowledge—the knowledge of the life of hidden things, if I understand correctly.

The goddess Ashérat prepares the throne of Aleïôn with her own hands ; then she sits down on his right, and they eat and drink together. A magnificent palace (or temple, *hekal*) is built for Aleïôn, and amongst the materials which enter into the construction of the building are cedars of Lebanon (*arz Lebanon*); and presents of gold and silver pour in from every direction. For seven whole days there are sacrificed bulls and fat sheep and also rams and one-year-old calves, and portions are distributed to the assembled multitude. Next, the seventy sons of the goddess Ashérat sing a hymn in honour of the gods and goddesses ; and Baal, seated in the throne-room, says to his Son: 'Lo, I have given thee (all) the kingdoms of the earth; in future evil shall not overcome thee'.

No one, indeed, it seems, will ever come to disturb the peace of Aleïôn, not even Mot, his ancient enemy who has given up the struggle.

Moreover, before departing—that is to say, before returning to the lower regions—Mot admits defeat, if not openly then at least in his heart. 'Now', he says, 'there is someone (he plainly means Aleïôn but avoids mentioning his name) who will fatten gods and men and make the desert green again'.

The contest between Mot and Aleïôn which occupies the first part of the poem is clearly an agricultural myth ; but the second part, the exaltation of Aleïôn, is less easy to explain. Mot, we have seen, had tried to displace Aleïôn and had failed. Aleïôn on the other hand, thanks to the constant support of his father Baal, had reduced Mot to extremities and in future would hold undisputed sway. Perhaps we may see in this second act an attempted explanation, no longer of life itself but rather of the origins of society.

Mot is not only the symbol or spirit of vegetation. He is a shepherd and according to one passage an agricultural labourer ; he lives in the country. Aleïôn, on the other hand, lives in a town ; he builds or has built for himself a palace, and in it he amasses a great accumulation of wealth. The gods grant him wisdom and knowledge, and he—or more precisely one of his supporters called Dan-El—will make the best possible use of these gifts, undertaking the defence of the oppressed and doing justice to the widow and the orphan.

Moreover, in the writings of Philo of Byblos there are two persons named Hypsouranios and Ousôos who are themselves also brothers

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at enmity with each other. Hypsouranios was reputed to have built the first houses, whilst Ousôos lived in the country clothed in the skins of animals. It is another aspect of that secular strife which still obtains in certain lands, the strife between nomad and settler, between Mot and Aleïôn. There would (or will) be many further points of contact to be established, or at least suggested, between our poem and Philo of Byblos, although the fragments of Philo are for the most part concerned with cosmogeny, and although the cosmogeny of Ras Shamra has not yet been found. It will also be necessary to compare the legend of Mot with other Phoenician legends, long though imperfectly known, especially such for instance as the famous legend of Adonis. And it is worth while enquiring whether this document, found in the extreme north of Phoenicia—and indeed somewhat beyond the frontiers of what has hitherto been regarded as Phoenicia—whether this document, certainly composed at Ras Shamra, represents merely the actual traditions of that town, to the exclusion of those of some other place or region.

It is a legitimate inference from certain facts, and notably from certain geographical allusions, that the Phoenicians of Ras Shamra originated in the south, and that Ras Shamra itself was a colony—one of those offshoots which the great cities of Phoenicia proper founded practically all over the Mediterranean, on the Syrian coast as elsewhere, probably before others. Doubtless one should not be surprised to find in the Poem of Ras Shamra either the name of Lebanon or the cedars of Lebanon or the springs (or more precisely the wells) of Lebanon; for although Ras Shamra is not situated right at the foot of Lebanon, it is known that the fame of this mountain range and its forest extended afar and goes back to a remote antiquity.

But if these traditions of Ras Shamra are really to be regarded as peculiar to northern Phoenicia, it would be difficult to explain the occurrence in our poem of a name like that of the land of Bashan. We have seen, indeed, that Baal kills his enemies after the manner of the *basanim*; and this word is most probably used to describe the formidable beasts, so familiar from the Old Testament, which inhabited the land of Bashan, a region beyond Jordan to the northeast of the Lake of Tiberias and forming the hinterland of Tyre. Further, it appears that, in spite of a slight epigraphic uncertainty, the name of the town of Ashdod occurs once, associated with the name of the desert of Kadesh. Now this desert lies to the south of Palestine, and Ashdod was one of the five cities of the Philistines, on the Palestinian

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coast above Jerusalem. Finally, in a list of different kinds of wines offered to the gods in certain ceremonies, there is mentioned the wine of princes, *in seranim*. But *seranim* does not mean princes generally; it is a title exclusively reserved, at any rate in the Bible, for the 'lords of the Philistines', for the rulers of the land nearest to the land of Canaan, and especially to Tyre, which lies 250 miles south of Ras Shamra.

These, of course, are still merely stray hints. The theory of a southern or Tyrian origin of the Ras Shamra traditions will need to be confirmed by the discovery of many more Phoenician tablets; and there are many other riddles that can only thus be solved. But even if the investigations now being conducted at Ras Shamra by MM. Schaeffer and Chenet should not be rewarded by the discovery of fresh documents, it is no exaggeration to state that those which we already possess form the most important epigraphic evidence that Syria has yet produced; and, not only for the history of ideas and beliefs but also for linguistics, to say nothing of the new and wholly unexpected light thrown by these tablets upon the origin of the alphabet.



1. BEAKER FROM FELINSTOWE
By permission of the British Museum



2. BEAKER FROM THE
DUTCH 'HUNEBED', ENLOO, DRENTHÉ

The Dual Character of the Beaker Invasion

by J. G. D. CLARK

IN his classic work on the Bronze Age pottery of Britain the late Lord Abercromby adopted the old division of the class of beaker pottery into three types originally proposed by Dr Thurnam as far back as 1871. In order that Abercromby may not be misrepresented I propose to quote the essential portions of his definitions. In type A, the 'high-brimmed globose beaker', 'the body is more or less globular; the upper part, separated from the body by a constriction, frequently very defined, spreads out like the calyx of a flower and forms a brim or neck that almost equals the body in height. The sides of the neck or rim . . . are straight and not recurved at the lip'. In type B, the 'ovoid beaker with recurved rim', 'there is no distinct demarcation between the body and the rim, but the one glides into the other by a gradual curve'. Finally type C, the 'low-brimmed beaker', 'may be regarded', in Abercromby's own words, 'as a debased variety of our first type'.

It should be clear already I think that in labelling his types A, B, and C Abercromby has given the false impression that we have three types of beakers, whereas what we really have are two types, of which one has a 'debased variety'. We therefore suggest that a less misleading classification would be, for instance, A(x), A(y), and B. This may seem a trifling point but we believe it has helped to obscure the proper recognition of the true dual character of the Beaker invasion of this country. We propose to substantiate the validity of our suggestion in the course of this short paper.

The division of the beaker pottery into types has in the past been based primarily upon the criterion of form, and we will examine this first of all. From Abercromby's definition it is clear that in the possession of a constriction, often marked, between the body and the neck of the pot, his types A and C share a characteristic essentially alien to type B, which in turn is alone in the possession of a recurved rim. The types A and C are thus both positively and negatively associated

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together in opposition to type B according to the criterion of form. As a further proof of the essential solidarity of the group which we shall henceforward call A+C we may point to the large number of pots which Abercromby found himself compelled to class as AC, in which the constriction lay rather higher than in A and rather lower than in C. The series A, AC, C is thus a continuous one.

The second criterion which must be considered is that of decoration. Here again we find that types A and C form a compact group in distinction to type B. In general style the rich and often rather heavy ornamentation of the first group is contrasted with the simplicity amounting almost

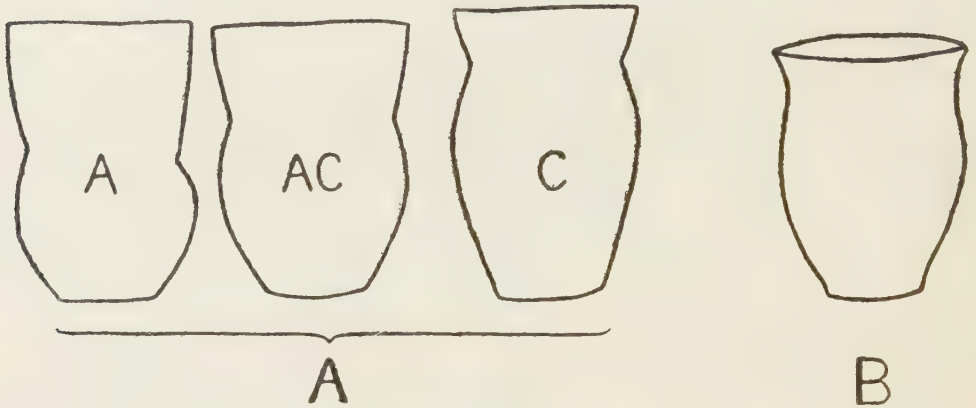


FIG. 1. TYPES OF BEAKER POTTERY *

to poverty of the decoration found on beakers of type B. Whereas the former employ often on a large scale such designs as negative and positive triangles, hexagons, chevrons, lozenges, lattices, etc., the latter is content for the most part with plain horizontal lines, occasionally enclosing oblique or criss-cross hatching, with a rare use of the linear chevron and the triangle, together with crude stab or finger-nail ornamentation.

The evidence of the pots themselves therefore leads us to the conclusion that we are dealing with two main groups of pots, the A+C and the B. It must however be pointed out that small variations can

*The type 'B' embraces a multitude of variations in form of which only one is shown in the diagram. All however partake of certain fundamental characteristics which lend some sort of unity to the group.

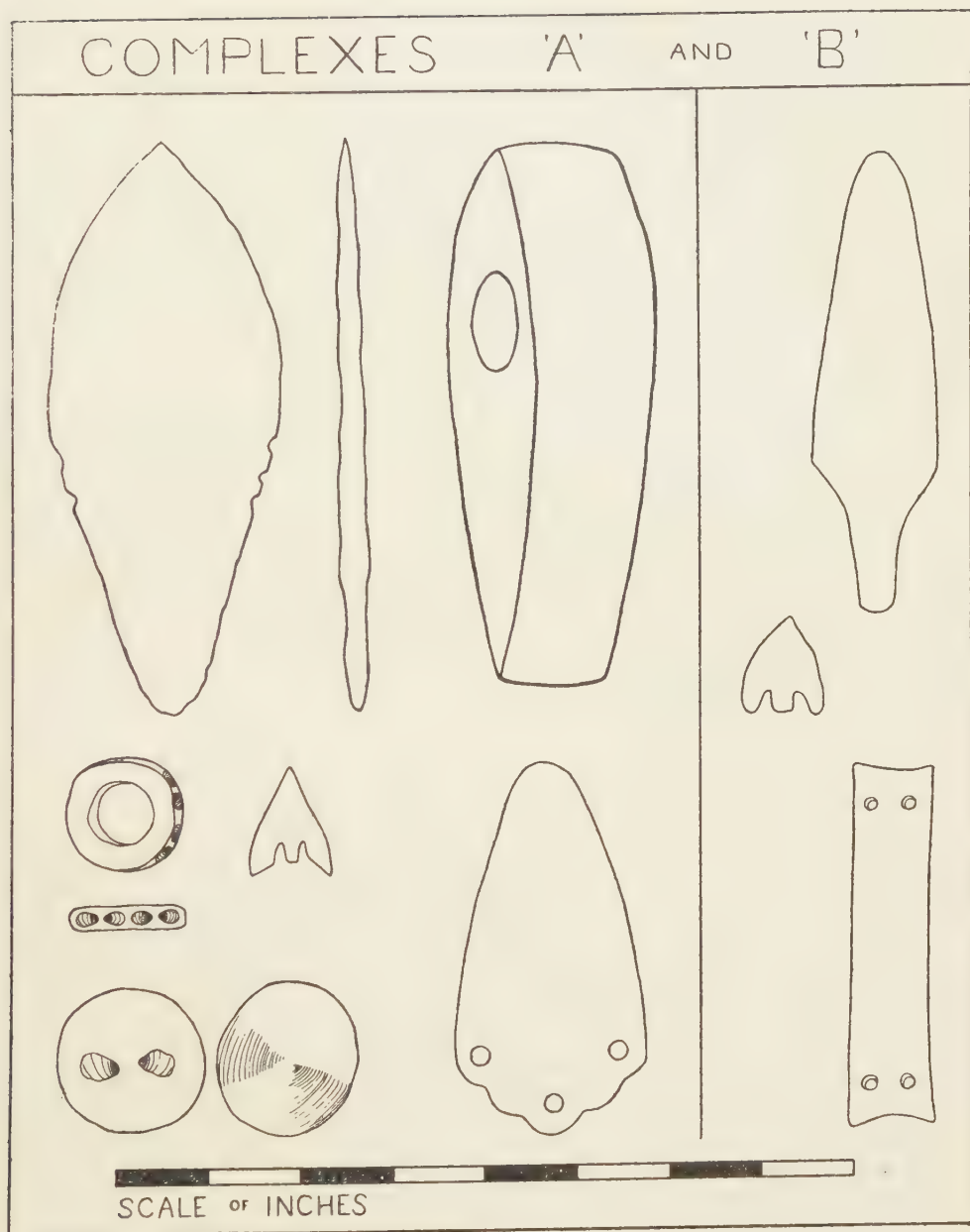


FIG. 2.

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be noted in the C type of pot, which Abercromby rather rashly perhaps ventured to describe as 'debased'. If we imagine the group A+C as a continuum over the British Isles we can note in the northern half a growing tendency for the constriction to move up nearer the rim, a tendency accompanied by certain departures in the method of decoration. Thus we may note a general tendency to a greater neatness, a toning down of the boldness seen in the south, together with the appearance of new motives such as that found rather unexpectedly on the pot from Bath road, Felixstowe,¹ but commonly in the East Riding of Yorkshire and Scotland. We do not propose to enlarge upon these northern beakers, as we are mainly concerned with the arrival rather than with the subsequent development of the beaker pottery.

There is however another line of enquiry which leads us to the same general conclusion. If we consider the cultural objects associated directly with beaker pottery we shall find further support for the belief that in the beaker invasion we have to trace two main currents. Perhaps the position can best be appreciated by indicating in a table the grave-goods found with the two types of beaker respectively:

	A plus C			B	Hybrid
Flint daggers	8	I	I
Stone axe-hammers	4	—	—
V-perforated buttons	8	—	—
Riveted metal daggers	5	—	—
Bracers	—	4	—
Tanged metal daggers	—	4	—
Flint arrowheads	3	2	—

It is thus fairly clear that the grave-goods of the two groups of pottery differed very materially. Apart from the flint barbed and tanged arrowheads which occur with both types, the principal objects found in the graves of the beaker invaders separate themselves decisively into two groups corresponding with the A+C and the B beakers respectively. The clarity of the evidence is all the more amazing when we consider that in many areas such as the Yorkshire Wolds and the Wiltshire Downs the two types of beaker are found intermixed; indeed the remarkable way in which the two culture complexes can be distinguished almost inclines one to the belief that there must have been a slight chronological difference in the date of their arrival. However

¹ Ipswich Museum, no. 1920.

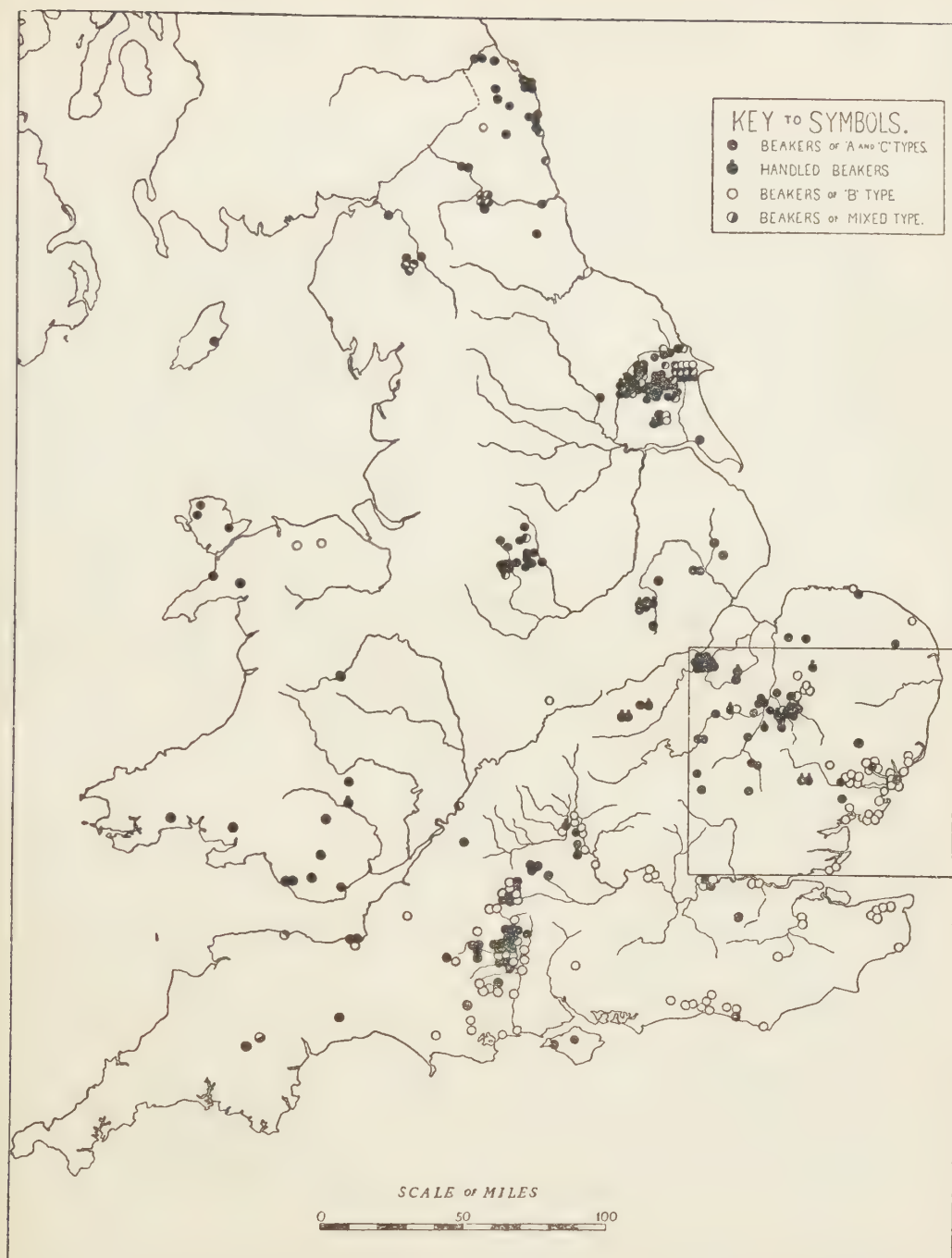


FIG. 3. DISTRIBUTION OF THE TWO TYPES OF BEAKER POTTERY

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this may be it seems clear that while we may associate the flint dagger,² stone axe-hammer, button and 'pulley ring', and rivetted metal dagger specifically with the A+C group of beakers, we may regard the bracer, and the tanged metal dagger as traits of the B group.

Now, if our assumption that the beaker culture penetrated this country in two distinct groups is correct, we might expect by plotting on the map the pots of either type to obtain some geographical confirmation, since it is highly unlikely that the distribution of two distinct complexes would be identical. Turning to our first map (fig. 3), which shows the distribution of the two groups respectively over England and Wales, certain glaring differences can be instantly noted; thus whereas the A+C type is found commonly around the borders of the Fens, on the Derbyshire limestone, in Northumberland, South and Northwest Wales, the East Riding of Yorkshire, and on the Wiltshire Downs, the B type is found in any numbers only in the southeast of the country, notably on the Suffolk and Essex coasts, up the Thames, in Kent, on the South Downs, and in southwest Hants, Dorset, and Wiltshire. Certain areas such as the Wiltshire Downs, and to a lesser degree the East Riding and the Thames Valley, show numbers of both types, but on the other hand the Derbyshire-Stafford group in which 16 out of 18 beakers³ are of the A+C type, and the South Down⁴ group, of which 10 out of 11 are B beakers, are good instances of the discordant distribution of the two types. Applying the magnifying glass in the second map (fig. 4) to the area enclosed on the first, we can study this discordancy in part of East Anglia at closer quarters. The reason why the two groups have in this area remained fairly distinct is probably to be found in the barrier of forest-bearing boulder clay which crosses the area diagonally. In this map an attempt has been made by shading vertically the clay forest lands, and horizontally the areas now covered

² A flint dagger was found at Lockeridge, near West Overton, Wilts, with a beaker of the B group. *Wilts. Arch. Mag.* XLIII, 395-6. This area is one in which both complexes are found richly, and cases of intermixture might be expected.

³ The following A+C beakers come from the area: Green Low, Alsop Moor; Smerrill Moor; Grind Low; Haddon Field; Bee Low; Sliper Lowe, Brassington Moor; Monsel Dale; Rusden Low; Stakor Hill, Buxton; Dowel, Sterndale; Minning Low; Blake Low; Castern, Wetton; Stanshope; Top Low; Mouse Low, Deepdale.

In addition two 'mongrel' beakers have been recorded, belonging to Abercromby's 'hybrid variant AB': Stanshope; Gospel Hillock, Cowdale.

⁴ The following B beakers come from the area: Cissbury (2); Downs northeast of Shoreham; Kingston by sea; Burpham; Wolstonbury; Devil's Dyke; Falmer; Belletout, near Eastbourne; Heathery Brow between Telscombe and Southease.

The solitary A beaker was found at Telscombe.



FIG. 4. DISTRIBUTION OF THE DIFFERENT TYPES OF BEAKER POTTERY IN EAST ANGLIA ON A GEOLOGICAL BASIS
The symbols are identical with those on fig. 3

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by alluvium to present a picture of the sort of vegetation natural to the area. In making any kind of mental picture from this map however it must be remembered that areas such as the coastal strip of Essex and southeast Suffolk, and the Fens, now covered with alluvium, were in the beaker period partly habitable areas, since we know that both the Fens and the Essex coast have sunk since beaker times. Interesting confirmation of this fact has recently come to light in the Cambridgeshire Fens, where a site occupied by people of beaker and early Bronze Age culture has been found below present sea-level and under peat. In spite of this reservation however the control of the forest areas on beaker settlement seems to have been almost complete. Consequently invaders landing for instance on the fen-borders of the Wash would have difficulty in reaching overland the Essex coast and *vice versa*. For this reason the area is a good one for testing the hypothesis that in the beaker invasion we have to deal with a dual phenomenon. A glance at the map will show us that whereas the great majority of the A+C pots come from the northern side of the boulder clay barrier, the B beakers come almost entirely from the south side.

A second geographical confirmation of our general hypothesis can be found in the study of the distribution of objects other than pottery known to belong to one or other of the two complexes. Thus if we take the flint dagger, assigned to the A+C group on the evidence of grave-finds, we shall see that its distribution tallies closely with that of A+C beakers and differs from that of B beakers. To illustrate this we can cite the case of the limestone area of Derby and northeast Staffordshire, in which 16 A+C and 2 mongrel beakers have been found; here no less than 7 flint daggers have been found. The South Downs of Sussex however, which produced 10 out of 11 B beakers, have yielded only one dagger—and that a fragment—of certain provenance, though the area is very rich in flint-work. Taking the area shown in our second map we find daggers plentiful round the edge of the Fens, the territory of the A+C beakers, and rare on the Essex and Suffolk coast. Or again we may consider the rivetted metal dagger of the type found with the A+C group of beakers.⁵ Whereas the Derbyshire and northeast Staffordshire area yields no less than 19 specimens, the South Downs have yielded none at all. Likewise in East Anglia the few examples that have been found all derive from the territory of the A+C beaker. In passing we should like to hazard the suggestion that the rivetted

⁵ Dr Cyril Fox and W. F. Grimes, *Arch. Cambr.* 1928, pp. 137-74.



FIG. 5. DISTRIBUTION OF FLINT DAGGERS OF BEAKER TYPE

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metal dagger of beaker type (*i.e.*, with no defined mid-rib) is closely allied to the flint dagger of the same complex. The curiously obtuse point of many of the metal daggers resembles closely that of many of the flint examples.⁶ As a third case we may take the v-perforated button of the A+C complex ; examples come from 5 separate burials in Derbyshire,⁷ whereas none have been recorded from the South Downs. Finally we may note that whereas 3 axe-hammers of the type commonly associated with beakers of the A+C group have been found in Derbyshire, none are known from the South Downs.

The cumulative evidence thus derived from the study of the distribution of the pottery and of its associated objects confirms in no doubtful manner the conclusion to which we had been driven from a direct study of the pottery and grave-goods themselves. There seems no reason to doubt that the beaker culture of this country is made up of two distinct complexes. Each of these complexes appears to have occupied different, though in places overlapping, areas. The B beakers appear to have reached us from the southeast ; landings seem to have been effected on the coasts of Dorset, Sussex, east Kent, Essex, and south Suffolk, while the Thames appears to have afforded a good means of entry ; smaller groups rounded the Norfolk coast and landed in the eastern corner of the Wash, while others seem to have reached the East Riding. The A+C group appears to have entered in very large numbers by way of the Wash as typical pots are found the whole way round the borders of the Fens ; another point of arrival seems to have been by way of the Humber as the pots are plentiful in the East Riding. The Derbyshire group probably arrived by way of the Trent. Whether or not the Northumberland beakers arrived overland or by sea direct is uncertain, though the fact that most of the pots are of Abercromby's type C, a development from type A, argues for the former. The probability that the south Welsh beakers came from East Anglia is suggested as Dr Fox has shown⁸ by the distribution of handled beakers, which belong to the A+C group. More doubtful are the Wiltshire beakers, some of which belong from a typological point of view to the earliest of their class in the country. The view that they came overland via East Anglia is suggested by the general distribution, a wedge of B beakers shutting them off from the coast ; on the other hand both the beakers from the Isle of Wight are typical

⁶ Compare figs. 90 and 96 of the British Museum Guide to the Bronze Age.

⁷ Net Low ; Castern ; Buxton ; Gospel Hillock, Cowdale ; Dowel Sterndale.

⁸ Dr Cyril Fox, *Arch. Cambr.* 1925, pp. 11-24.



FIG. 6. DISTRIBUTION OF STONE AXE-HAMMERS OF BEAKER TYPE

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examples of the A+C group. Crossings of the two complexes are to be found mostly near the peripheries of the beaker penetration, and mongrel beakers are thus found in Devon, the East Riding and Northumberland. In general, especially if we agree that the Wiltshire A+C beakers arrived via East Anglia, we can say that the A+C groups reached us by a more northerly route than the B beakers. Can it be a coincidence that whereas the former brought with them a Nordic inventory of flint daggers and holed axe-hammers, the latter used the west European tanged dagger and archer's bracer? But it is to the Valley of the Rhine and the Low Countries that we must look for the jumping-off place of our invaders, as we are reminded by the close similarity often to be noted between individual pots, *e.g.* a 'B' beaker from Felixstowe⁹ (B.A.P. 94) and another from the 'hunebed' of Exloo, Drenthe¹⁰.

INDEX TO DISTRIBUTION MAPS

FLINT DAGGERS :—

Thames Valley and south of : London bridge, Chelsea bridge, Walton, Kingston, Hammersmith (2), Molesey, Cookham Dene, Hurlingham, Hornsey, London, Ham House, Henley, Barn Elms, Sion Reach, Hitcham ; Carshalton, Maidstone, Peasmarsh, Glastonbury (4), Stogursey, Stonehenge, Durrington Walls, Hurst Hill, Lockeridge, Lambourn Down, and near Eastbourne (frag.)

East Anglia and area south of Trent : Newark, near Peterborough (2), Balsham, Burwell (3), Quy (2), Bottisham (3), Lode, Undley, Burnt Fen (2), Thetford (2), Lakenheath, Hare Park Cambridge, Cambridge Fen, Haslingfield, Brantham, Ipswich, Chelmsford, Kempston, Leighton Buzzard, Dunmow, Kelvedon (2), Braintree, Great Weldon, Fiskerton, Daventry, Scunthorpe, Kirkby-cum-Osgodby (2), Flixborough.

Wales : Llanelieu, Ystradvellte.

England north of Trent : Blake Low Matlock, Kenslow Mere, Arbor Low, Wetton, Nether Low Chelmorton, Green Low Alsop, Ragstone, Amble, Cottingham, Irthington, Garton Slack (2), Middleton-on-the-wolds, Acklam Wold, Smerril Moor, Wooler, Worsthorne Moor Bumby.

HOLED AXES OF BEAKER TYPE :—

Thames Valley and south : Datchet, Parliament Stairs, London, Avebury, Woodhenge, Amesbury, East Kennet, Bulford Down.

East Anglia and area south of Trent : Bardwell, Ely, Bottisham, Colchester.

Wales : Carno, Rhyader, Trelech a'r Bettws, Llanglydwen.

England north of Trent : Sproatley, Sledmere, Rudstone, Holystone, Millfield, Northenden, Garton Slack, Sunderland, Sleights, Staintondale, Peak, Standlow, Carder Low, Parcelly Hay.

⁹ Reproduced by permission of the British Museum.

¹⁰ Dr A. E. van Giffen, *The Hunebeds in the Netherlands*, pl. 154, fig. 81. Unknown to the author Dr Rudolf Stampfuss, remarked on the great similarity of the two pots on page 93 of his book 'Die Jungneolithischen Kulturen in Westdeutschland', 1929.

Beads from Nineveh

by HORACE C. BECK

ONE of the most important finds made during last (1929-30) season's excavation at Nineveh, is the collection of beads from what Dr Campbell Thompson, the Director, calls the bead-layer. This layer was about 6 feet thick and situated at a depth of from 27 to 33 feet below the surface on a portion of the site called A and B. In addition, some other beads were found at lesser depths on the part of the site called H, which I think I can show are very closely connected with those from the bead-layer.

How such a large number of beads came to be collected together here it is difficult to explain. As they were found in what appears to be the bed of a small rivulet they may have been washed down.¹ The lie of the land at this point makes it probable, but if so they must have been washed out from a large cache at a period when they were very much stronger than today. In their present condition a few minutes rolling in a stream would disintegrate most of the faience beads. Possibly they came from the remains of a bead factory, and the fact that a number of pieces of slag have been found tends to make this theory plausible.

The beads consist mostly of faience and shell, either complete shells or worked portions, but there is also a considerable number of stone ones, the most numerous of which are of gypsum.

There are several varieties of faience, most of which are in a very bad state of preservation. The core was usually black but in some cases it is a rather dirty white. In one case the core nearest to the glaze is white, whilst that nearest the perforation is black (1). The glaze, which is very opaque, was originally white, green, blue, red, and black. The white glaze was sometimes on a white core and sometimes on a black one. Mixed with these were some small, better preserved, pale blue faience beads (2) which are identical with some beads from H. 19 and H. 15.

¹The result of a further season's excavation makes it rather doubtful if there was an actual rivulet, but the fact that the bead-layer was at the bottom of a slope would render it extremely muddy in times of rain.

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The faience beads include all the simple forms such as oblate, spherical (3), barrel (4), bicone (5, 6), and cylindrical (7, 61), also triangular (8), square, and rectangular cylinders (1, 9).

There are, however, three completely new types of beads or pendants of great interest. First the imitation tooth pendants (10). These are made by inserting a large piece of quartz in a piece of faience somewhat resembling a fang, in which the perforation for suspension is made. The quartz portion was covered with soda and then the whole was heated to a great temperature so as to harden the faience and produce a sort of fire polish on the quartz. A very considerable number of these have been found, and a still larger number of the pieces of quartz from which the faience part has crumbled away. In some cases the resemblance to a human molar tooth is so striking that I think there is no doubt that these pendants were intended to represent teeth. This is of considerable interest, as the wearing of real teeth in Mesopotamia is very uncommon, and I know of no case in which human teeth have been worn there. Dr Campbell Thompson found a crocodile's tooth pendant last year and Mr C. L. Woolley has found two large carnivore canines (probably lion's) at Ur.

In Egypt, crocodile, hyaena, and other teeth were occasionally worn, but usually after the XXIst dynasty. In Europe and Algeria, animals' teeth were frequently worn both in the Aurignacian period and until Roman times. It was, however, unusual to wear human teeth, and, although they have been found in one of the abri in France, there is no evidence of their having been worn extensively in Europe and Asia as they have been in many of the Oceanic Islands such as the Gilbert Islands, where a necklace consisting of 150 human incisors has been found.

It therefore seems difficult to explain the reason for these imitation teeth beads. The usual one, namely that the supply of real teeth is insufficient, scarcely seems to hold here, although it explains such cases as the demand for musk deer canines where porcelain copies are in demand.

Dr Campbell Thompson suggests that the explanation may rest in some form of magic. There certainly has existed at many periods in different countries a belief that magic can be worked against a person if the sorcerer has his teeth, hair, nail parings, or even his name, but it is not easy to see how these beads could be used. Another suggestion is that they hoped to derive some protection—possibly from people or perhaps from toothache—by wearing them. At the



BEADS ($\frac{1}{2}$) FROM NINEVEH, NOS. 1-33

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present day, in some countries, the wearing of a portion of an animal is frequently supposed to be a protection from attack by the animal, and also to give the wearer some of the strength of the animal itself.

The second variety of new faience beads are the bicolour inverted drop pendants (11). These pendants, which have the upper and lower parts of different colours, are not merely glazed with a different colour but the cores of the two parts are made of quite different materials and the two parts are very liable to become separated.

The upper part, which is perforated, is almost always black, whilst the lower part has a white or colourless core. This part was glazed in different colours, and, although in most cases the glaze has entirely disappeared, there are sufficient remains to show that whilst some were red others were yellow and blue. Beads of this shape but of uniform colour have been found at Ur, but they have not yet been accurately dated.

The third new variety of faience beads are the crumb beads (12, 13). These, with one exception, are either oblate or spherical, and the fact that they are this shape is one of the ways in which they differ from the Egyptian. The large size grains, now very loosely attached, are also much more of an integral part of the bead than the crumbs on the Egyptian beads, and consequently give them a different appearance. Most have a dark core, but a few have a light one, and there is still a trace of colour left on some which shows that they must originally have been red and blue. There is one barrel shaped specimen (13) which is the shape of the Egyptian, but in all other respects is like the oblate ones.

In addition to these three types there are many very interesting faience beads. A very rare type is the concave cylinder or windlass bead (14), a form previously found chiefly in China, though a single specimen in noble serpentine has been found in predynastic Egypt. There are many gadrooned beads, both the oblate melon form (15), and the barrel-shaped (16); most of them have 8 or more gadroons, but there are fragments that show that some barrel-shaped ones had only four gadroons like the beads from the Aegean. A string of beads identical to some of these with about 8 gadroons has been found by Mr Woolley at Ur, and has been dated by him to the earliest period of the royal graves.

Some of the beads are segmented: both cylinders (17, 56) and barrels (18), and in some cases they have a spiral round them (19), and occasionally the surface is granulated.

BEADS FROM NINEVEH

One specimen in white faience (20) has a broad band of black making a zone round it, whilst another bead (21)², also of white faience, has a black chevron with two crests very boldly shown. (This bead was found in D. 10 but is evidently allied to some of the beads in the bead-layer). A few multi-tubular beads (22) in black faience were evidently used as spacers.

Amongst the amulets, the most frequent are little faience ducks. They generally have black cores and some still show traces of blue glaze. These are similar in shape to some found at Ur, but the latter are in white faience. These Ur ducks are not dated but are probably before 2200 B.C.

Several specimens of a new faience amulet were found (23) which possibly represent a beetle; also a very fine jug or vase amulet (24) which is perforated through the centre, in this way suggesting that it was strung on a terminal string like some of the large beads at Ur.

A faience button (25) has been found in this layer. It appears to be of an early type of faience, and to have been subjected to a great heat as there are so many bubbles in the glaze. This is a new type of button and much neater than the plaster of paris buttons found both last year and this.

A certain number of small blue to white hard faience beads were found (2). These are of interest as they are identical with a number found together at H. 19 in circumstances which date them with fair certainty to the prehistoric period. They show some similarity to faience beads discovered at Ur, of which one or two came from the royal graves. A section shows that the interior is very friable.

After the faience, the most numerous beads were of shell. Most of the shells were worn complete simply by cutting a hole so as to thread them. In addition to the complete shells were a number of amulets cut from shell.

The complete shells pierced to wear on necklaces are of many varieties. The olive, dentalium and pusiostoma shells are the most numerous. Cowry shells are rare, and when found are usually of large size (*cypraea lurida*, L.). The little money cowry (*cypraea*

² Another with 2 black zones (26) and in much better condition than usual was found at A 12, but evidently belongs to the bead-layer.

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moneta) is not found. Mr J. R. de B. Tomlin, of the Natural History Museum, South Kensington, has identified the following varieties.

From the Indo-Pacific or Indian Ocean :—

Oliva bulbosa, Bolton, very common; *Dentalium octangulatum*, Don, very common; *Strombus mauritianus*, L, common; *Conus musicus*, Brug., common; *Mitra literata*, Lam.; *Nerita polita*, L; *Pusiosoma mendicaria*, L, very common; *Potamides cingulatus*, Gmelin.

From the Mediterranean Sea :—

Columbella rustica, L; *Cypraea lurida*, L; *Cypraea spurka*, L; *Nassarius gibbosulus*, L; *Conus mediterraneus*, Brug., common; *Cardita antiquata*, L; *Glycymeris violascens*, Lam.; *Osilinus tubiformis*, Salis.

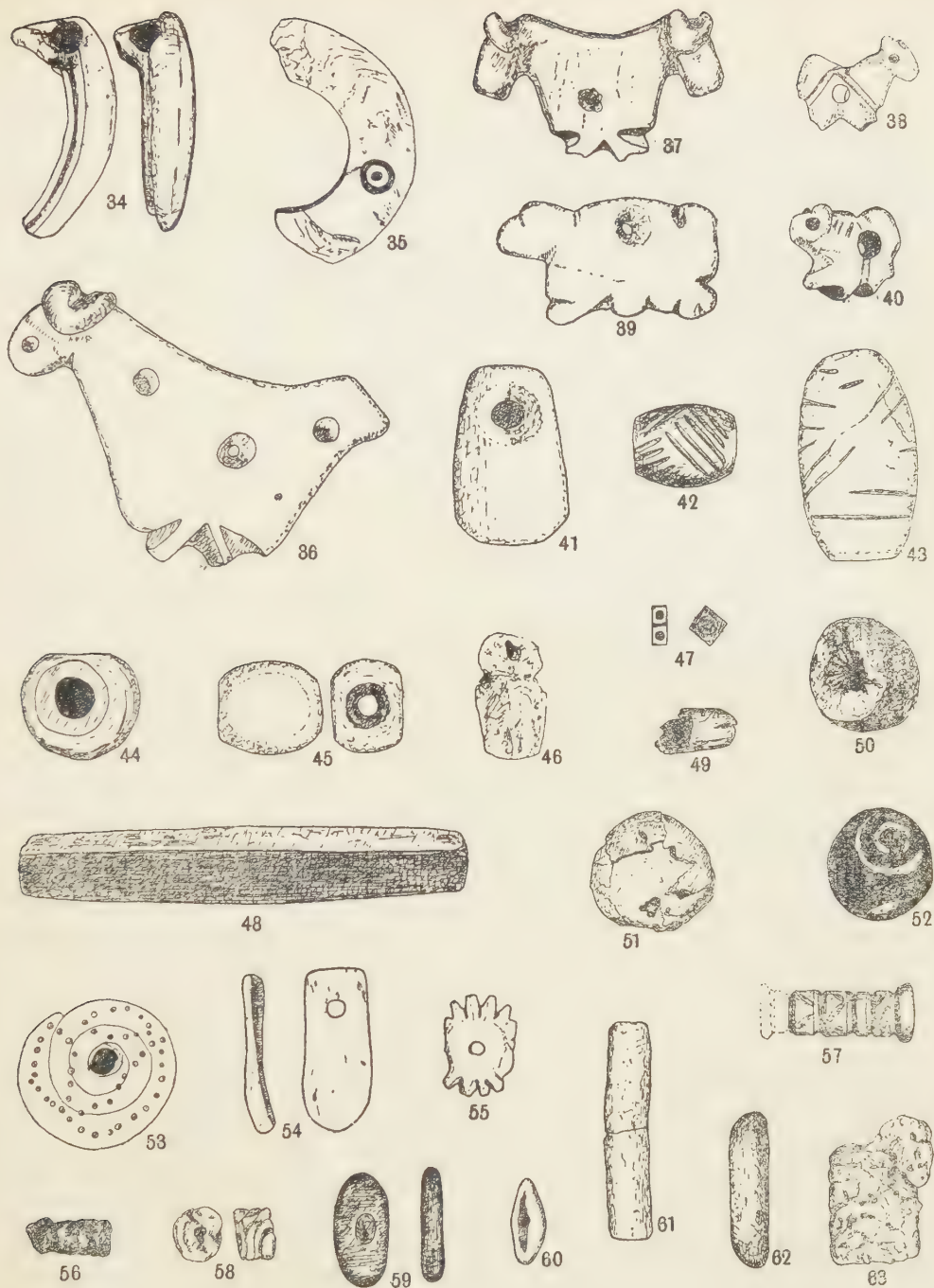
From the local fresh water : *Melanopsis costata*, Ol.

The shells from the Indo-Pacific and Indian oceans probably came by way of the Persian Gulf, and these represent far the greater number of specimens.

Of the articles cut from shell, the most numerous are plain rings, of which over 50 were found. Similar rings were found in considerable numbers at Ur. The shell pendants were mostly sharply pointed and represented some form of tool or pick (27); they vary from 0.5 to 0.75 inches in length. There are also a few drop-pendants of various forms (28, 29, 30, 54). A curious variant is 31. One pendant seems to represent a tooth (32), but this may be accidental.

There is a fine shell amulet (33) possibly representing a beetle (?), and a large piece of shell pierced at one end which may represent a claw (34). There is also a portion of a large shell amulet representing the hind quarters of a running animal, possibly a horse. This specimen was not actually found in the bead-layer but in G 13 so it may not belong to the same period.

A certain number of small shells are blackened, I believe artificially and by means of iron. How this was done is not yet known, but the method has been carried on from an extremely early date, having been applied to a large number of ostrich shell beads found in Kenya by Mr L. S. B. Leakey, who believes that they date to the Aurignacian period. Scarcely any ostrich shell beads have been found here, and no blackened ones. An artificially blackened ostrich



BEADS ($\frac{1}{2}$) FROM NINEVEH, NOS. 34-63

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shell bead has been found in Palestine but not yet in Egypt, although some blackened sea shells have been found there amongst beads of the early dynasties. The rareness of ostrich shell beads at Nineveh is peculiar, as several pieces of ostrich shell have been found. There are, however, disc beads of sea shell and mother of pearl, and parts of two large mother of pearl rings (35) and a broken mother of pearl cogwheel bead (55) have been found.

Five very fine stone amulets were found ; they are all of the flat variety. The largest, about two inches long, appears to have been originally a double bull amulet (36). At some time, one head being broken, it has been ground down to its present shape. A slightly smaller one, 1.4 inches across, is a perfect specimen of the double bull amulet (37). Another and smaller amulet (38) appears to represent a goat. The fact that the band round the base of the neck is repeated round the rump, and the conventional arrangement of the legs, make it probable that this was originally a double-headed amulet. Another amulet seems to represent a bear (39). From the position of the perforation it does not seem probable that it could have been double-headed. The other amulet brought back seems to be meant for a bear or else some animal such as a marmot (40). This certainly has not been double-headed at any time, and the method of treating the eye and head is decidedly superior to the others.

A large stone pendant (41), a typical drop form similar to some of the smaller shell ones, and a stone toggle (59) have been found.

There are five large limestone barrel-beads. Two are decorated with rough line designs typical of the early Jemdet Nasr period (42, 43, 44) ; one of these has the circle and flat cross-section that is frequently found in Mesopotamia but very rare elsewhere. Another of them which is not engraved is a tabular barrel (45).

The stone beads are not at all numerous and most of them are of pink or white gypsum and are quite small. They have a peculiar appearance, as they are quite irregular, and at first sight look as though they had been cast (58).

The material is sulphate of lime and is the true alabaster. Almost all the material which is called alabaster in Egypt is carbonate of lime or calcite.

What was believed to be a moulded button was found last year and another this year, and the question as to whether these beads were cut out or moulded becomes of some interest. At Ur Mr Woolley has this year found a number of alabaster vases which are

BEADS FROM NINEVEH

completely out of shape and have concretions on the sides and are very similar in appearance to the gypsum beads. A microscopic examination of a section through a bead shows an extremely pure material, much purer than that found in the sections of the buttons. There appear to be parts where, due to pressure and moisture, the bead has broken and cemented itself together again. Also there are no traces of bubbles like those found in the button last year. With the exception of the parts which appear to have cemented again, the bead section is so homogeneous that I think it is fairly certain that it was cut from the solid and not moulded. On the other hand the section of the button shows some relatively large pieces of what look like natural gypsum surrounded by a much finer crystalline structure.

In addition to one larger gypsum bead (63) a small pendant (46) has been found.

A few lapis beads were all small ; the most interesting was a minute tabular bicone with corner perforation (47). On one of the main surfaces is a very well executed design of a spot with two concentric circles. Some were small bicones like those Mr Woolley has found in such quantities in the royal graves at Ur.

Amongst the other stone beads may be mentioned a fine moderate sized barrel bead of sard with double cone perforation, evidently early ; a black hard stone triangular barrel, very roughly made and possibly cut from a natural pebble ; a long squared cylinder (48) in black steatite 2.3 inches long ; a cylinder of the same material 1.3 inches long, and a black annular bead of the same material (62) similar to those found in the Aegean.

Two very unusual beads were made of bitumen mounted on thin copper or bronze tubes (49). These were long barrel beads and very fragile. A cylinder bead (50) is also made of a similar material, but it does not seem to have a central tube.

One or two very corroded metal beads were found in this layer. The largest was a bicone and is apparently made of silver or lead ; owing to the low specific gravity it is probably the former (51). It may have a core of bitumen like many of the gold and silver beads from Mesopotamia, but it is difficult to say without breaking it open.

In the same layer where these beads were found, a certain number of articles of a later date were also discovered. These included a bit of a green glass vessel of a type common in Roman times, a portion of a glass bracelet which may be Greek, and a very fine glass eyebead (52)

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which may have been made any time between 1000 and 500 B.C. Glass unfortunately corrodes so badly in the soil that only the slightest traces are sometimes found ; but enough fragments have been found to show that several other types of glass beads were there although it is not possible to date them with any accuracy.

It is interesting to note that no blue frit beads or *cypraea moneta* (the money cowry) were found in this layer.

In considering the dating of the main collection of beads from the bead-layer the following facts indicate an early date:—

(1) A string of faience gadrooned beads, identical with those in the bead-layer, has been found by Mr Woolley in the earliest period of the royal graves at Ur.

(2) A black faience cylinder bead, a black faience multitubular bead, and a pale coloured cylinder bead identical with those from the bead-layer, have been found by Mr Woolley in the Jamdat Nasr period at Ur.

(3) The small green blue to white faience beads found by Dr Campbell Thompson at H. 19 in a pot which he definitely dates to the prehistoric period, coeval with the upturned bowls, are identical with a number of beads from the bead-layer. These are also made of a material which is very similar to that used to make the rare blue faience beads found in the royal tombs at Ur.

(4) The gypsum beads from the bead-layer which have warped are similar in appearance to the warped vases found by Mr Woolley in the Jamdat Nasr period remains at Ur.

(5) Several limestone beads and probably some other stone beads belong to the Jamdat Nasr period.

(6) The decorated shell bead (53) is identical in technique and general design with a bead found at Tel el Obeid. (See Hall and Woolley, *Tel el Obeid*, plate XII. 10).

(7) Some beads found at H. 22 (a presumed early site) are identical with the faience beads in the bead-layer. These have amongst them half of a bicolour inverted drop pendant.

Although some of these points in themselves may be of little importance, several are very striking, and taken altogether they convince me that the beads are very early, at any rate as early as the royal graves at Ur, and possibly earlier. There are wide differences

BEADS FROM NINEVEH

of opinion amongst archaeologists as to the date of these early sites, but I think it is safe to say that the beads are not more recent than 2900 B.C.

An examination of the plan and elevation of the ground where Dr Campbell Thompson has been excavating makes it possible to propound a very plausible theory as to how these beads arrived in the bead-layer. This layer lies at the bottom of a hill. Near the summit of this hill, on site H, are a number of apparently undisturbed remains of prehistoric date. Some of them are as near the surface as H. 12, whilst at H. 15, and H. 19 are blue faience beads identical with those in the bead-layer. In the 7th century B.C. this hill was cut into and a wall erected along it. The theory is, that originally these beads were amongst prehistoric remains near the top of this hill, and that at some time, either during or before the building of this wall, the earth containing the beads was disturbed and they were washed or rolled down the slope into the rivulet or marsh at the bottom.

Saxon and Norman Sculpture in Durham

by G. BALDWIN BROWN

Professor Emeritus of Fine Art, Edinburgh University

WHEN one phase of decorative art for reasons historical, social, or religious, passes out of existence and is succeeded by another, there generally occurs what is technically termed an 'overlap'. This is so common that it is often accepted without consideration as universal, and the expression 'Saxo-Norman overlap' is employed with reference to architecture of early twelfth century where it has validity, but also to decorative sculpture where it possesses no solid ground or meaning. Saxon stone carving is on different lines from Norman and the two do not coalesce, the Norman enriched tympanum carrying the Norman art, the free-standing carved cross the Saxon art. The above must be left for the moment as a statement which will later on receive its due explanation and support, but the subject of the present brief paper is germane to it.

It so happens that we possess datable specimens of late Saxon and early Norman sculpture in the shape of carved heads belonging to Saxon crosses that stood on the future site of the Norman Chapter House of Durham Cathedral and may be dated early in the eleventh century, and Norman enriched capitals of columns in the early Castle Chapel that can be placed in date before the year 1100. This early Norman chapel, which is of course quite apart from the Cathedral, is involved in the extensive works of preservation going on in the Palace-Castle, and the Clerk of Works in charge is Mr C. Singe, who unites with a genuine scholarly interest in old work expert skill with the camera. At the suggestion of the writer he has taken a series of views of the capitals of the Chapel columns, among the first examples of Norman decorative sculpture in England. These photographs are reproduced here, not on account of any beauty to which they may lay claim, but as interesting historical documents. They are accompanied by a few explanatory notes. As a piece of Saxon work

SAXON AND NORMAN SCULPTURE

for comparison there has been added a view of the best preserved example of the Chapter House cross-heads, which are more or less contemporary in date but in quite a different style of work. With the Normans the architectonic sense and the spirit of system are supreme, while the Saxon fancy, as evidenced on the early Sceatta coins, is far more inventive and lively.

There are in the Chapel six columns supporting the vaulted roof, in two rows of three in each, a north and a south row. The southwest column is numbered 1, the middle one in the south row is 2, and the southeast column on the altar steps is 3. In the other row number 4 is the northwest column and numbers 5 and 6 follow towards the east. Each of the six capitals would provide four views, but the five specimens out of the possible twenty-four are quite sufficient to give an idea of the design and execution of the work which is carried out in stone. The photographs are arranged in numerical order according to the scheme just given.

Plate 1, NW corner of number 2. Two quadrupeds, one on the west the other on the north face of the cap, have their heads joined together at the corner and take the place of a volute. Most of the surface of the cap is covered with irregular 'chip-carving' in stone, showing the beginning of what became systematized into the 'star' patterns, etc., of the twelfth century.

Plate 2, SE corner of no. 3. At each corner there is a grotesque human figure with the large head boldly and skilfully modelled, and it is characteristically Norman to note that the head is so treated as to correspond in general form to the carved volutes of the capitals as a whole. This is Norman 'system' in operation. On all the caps the middle spaces between the volutes or other corner ornaments are occupied with some ornamental motives, most generally by very stiff and formal conventional foliage. Under these sprays we find often, as here on no. 3, a human mask.

Plate 3, SW corner of no. 6. This cap is more severely architectural than most of the others. There is at each corner a volute, and this, with the other similar corner volutes, gives us the characteristic difference between Norman and Saxon work. No Saxon carver could have given his architectural member so clear and firmly modelled a shape, just as no Norman could give such liveliness and grace to

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bits of foliage or to animals as came naturally to the Saxon. Here on no. 6 the middle space on the south has, above, a conventional spray, and, below, a flat and ugly human mask. A similar head on the western face is far better. It has an open mouth with tongue showing and a beard. There are two small horns on the forehead and ears pricked up above.

Plate 4, NE corner of no. 5. Here are better and less Saxon volutes than we find anywhere else. The tameness and want of grace in the foliage sprays on the middle spaces will be apparent.

Plate 5, NW corner of no. 4. The western face of this cap is occupied with an ambitiously designed quadruped who stands facing south. The body is treated with incised diagonals, evidently suggested by the stones set lozenge-fashion on so many pieces of Norman walling. The head is furnished with stag's horns, and under its snout there appears to be crouching a human figure facing south with a huddled up creature south of it.

Plate 6, Saxon cross-head from the foundations of the Chapter House.

This is one of four cross-heads of the latest Saxon period, pretty surely within half-a-century of the early Norman caps, and shows, not ruder, but more fanciful and irregular, work. In the central round the Agnus Dei, with right forefoot on a sacred book, and very fair proportions, possesses life and animation. This central figure is surrounded by the Evangelists—Luke and Mark on the side—arms in the form of human bodies with the symbolic animals' heads, and with lions' feet under Mark (sinister side). Matthew is represented by the Angel above, while for St. John we must look to the back of the topmost arm (not shown here) where is a fairly successful eagle. What the carver meant by all his quaint details it is not possible to say, but the contrast that the work presents to that of the Norman designer is most significant of the difference between the two arts.

PLATE I



SCULPTURE IN THE CASTLE CHAPEL, DURHAM

Northwest corner of cap of column 2

Ph. (pls. 1-v) Mr C. Singe

facing p. 440

PLATE II



SCULPTURE IN THE CASTLE CHAPEL, DURHAM
Southeast corner of cap of column 3

PLATE III



SCULPTURE IN THE CASTLE CHAPEL, DURHAM
Southwest corner of cap of column 6

PLATE IV



SCULPTURE IN THE CASTLE CHAPEL, DURHAM
Northwest corner of cap of column 5

PLATE V



SCULPTURE IN THE CASTLE CHAPEL, DURHAM
Northeast corner of cap of column 4

PLATE VI



LATE SAXON CROSS-HEAD, DURHAM CATHEDRAL

Ph. G. Baldwin Brown

Cerdic and the Cloven Way

by O. G. S. CRAWFORD

ENGLAND is an Anglo-Saxon country. Most of its present inhabitants are at least in part descended from Teutons who came over here from Scandinavia and Germany. The history of these invasions must therefore be of interest to all English-speaking people ; and fresh evidence deserves early publication.

In the following essay I shall discuss only the arrival of Cerdic and Cynric and their followers—on what portion of the coast did they land, and by what route did they reach the Upper Thames, where later they established the nucleus of a kingdom ? This is one of the most controversial problems of early English history ; it is still unsolved and students have to decide between three possible routes. According to the only surviving historical account they landed somewhere on the south coast under the leadership of Cerdic and Cynric, and fought their way northwards through Wiltshire. According to Mr Leeds, who rejects the Chronicle account and bases his argument upon archaeological evidence, they landed on the shores of the Wash and advanced southwestwards along the Icknield Way.¹ According to others they sailed up the estuary of the Thames, and settled on its banks.

I do not propose to discuss the respective merits of these routes. It will be easier to do so after the completion of the map of Anglo-Saxon Britain (450–850) which is now being compiled at the Ordnance Survey. I shall assume that the facts related by the Chronicle did actually occur. I shall hold a brief for the Chronicle, and attempt to reconcile it with the facts of topography. No harm is done by such special pleading if the advocate is prepared (as in this case he is) to accept whatever verdict the jury may find.

The facts are well-known and will be found in the text-books² ; but a summary statement may be useful for reference :—

495 Cerdic and his son Cynric landed at Cerdices ora and fought with the Britons on the same day.

¹ 'The West Saxon invasion and the Icknield Way', *History*, July 1925, x, 97–109.

² Such for example as Professor A. M. Chadwick's *Origin of the English Nation* (Cambridge, 1907) where all these matters are fully discussed.

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- 508 Cerdic and Cynric killed Natan leod, a British king, and the district was called Natan leah afterwards as far as Cerdices ford.
- 514 The West Saxons landed at Cerdices ora. Stuf and Wihtgar defeated the Britons.
- 519 Cerdic and Cynric began to reign, and in the same year fought against the Britons at Cerdices ford.
- 527 Cerdic and Cynric fought against the Britons at Cerdices leah.
- 530 Cerdic and Cynric captured the Isle of Wight, and killed some men at Wihtgares burh.
- 534 Cerdic died. The Isle of Wight had been given to Stuf and Wihtgar by their relations (nefan) Cerdic and Cynric.
- 544 Wihtgar died and was buried at Wihtgara burh.
- 552 Cynric defeated the Britons at Searo burh.
- 556 Cynric and his son Ceawlin fought against the Britons at Beran burh.
- 560 Ceawlin succeeded to the throne of Wessex.

It is plain that these events began somewhere on the coast of Hampshire. Though few of the places mentioned can be identified with certainty, there are enough to indicate the locality. Cerdices ford is said by Ethelwerd³ to be on the Avon and can safely be identified with Charford, between Salisbury and Fordingbridge. (The exact topography of the fords there is dealt with below). Searo burh is Old Sarum; Beran burh is Barbury Castle on the Marlborough Downs; Wihtgara burh is Carisbrooke Castle⁴; and Wiht is of course the Isle of Wight.

The key of the opening campaign is Cerdices ora, and unfortunately the site of this is unknown. It must be somewhere between Christchurch and Portsmouth, and it is very unlikely to have been in the immediate neighbourhood of either of these two places. If Cerdic and Cynric landed at or near Christchurch and advanced up the Avon Valley—and that is the only possible direction to take—they would have had to cross the Avon at Fordingbridge; for north of this place the steep eastern sides of the valley abut right on the river and prevent passage along that side. Further advance would have to have been,

³ *Monumenta Historica Britannica* (Record Commission, 1848), 503.

⁴ See note 1, at end, p. 457.

CERDIC AND THE CLOVEN WAY

then as now, along the western side. The battle would then have been at Fordingbridge rather than at Charford.

On the other hand, it is most improbable that they would have landed anywhere east of the Test, for in that event they would surely have spread northwards into Hampshire rather than northwestwards into Wiltshire. Calshot is topographically possible, but the *name* has no connexion with Cerdices ora.⁵ Indications point to a site somewhere on the western shore of Southampton Water, near its head; and for reasons which will be evident later I should place Cerdices ora at Totton. This is the natural haven of ships coming from the east, if they enter Southampton Water; there are no harbours between it and Calshot, and indeed Calshot is hardly a harbour at all. Totton is still used by quite big ships, and within living memory it was quite a busy port. It is at the head of Southampton Water, and they would naturally penetrate as far inland by water as they could. Another argument in its favour is the statement that the district between Cerdices ora and Cerdices ford was called Natan leah. For immediately to the west of Totton is a low-lying district called Netley Marsh, and the early forms are consistent with a derivation from Natan leah.⁶ The old name of the mysterious earthwork at Downton was Nettlebury; but we must, in the absence of any early forms, resist the temptation to connect it etymologically with Nata; for a form Natan byrig would have become Natebury or Netebury, and the more obvious explanation of Nettlebury is better.

Cerdices leah is to be looked for west of the Avon, for the battle there occurred after that at Cerdices ford.

If, then, the Chronicle is to be trusted, and if these identifications

⁵ Early forms are:—Celces ora (980): Calcheshourd (1340?): Calsherdas (1539): 'Caldshore, communely Cawshot' (Leland): Calshord (State Papers, Eliz.). The suffix survives in Ower Lake, applied to the creek behind the shingle-spit. The name seems to mean 'chalk shore'; referring perhaps to the place where chalk was disembarked for manuring the barren sandy and gravelly soil. Water-transport would be used for such heavy goods; there are sources near the sea at Portsdown (Paulsgrove) and Pan Down, Shide, Isle of Wight. Chalk is still used for marling at Nursling.

⁶ Early forms of Netley Marsh are Nateleg' (1248), Natele (1256), Natale (1316), Natele (1327). Netley Marsh lies south of Tatchbury Mount and west of Bearslane End (see map, p. 456). Professor Mawer, to whom I am indebted for these forms, thinks that the name Netley (Marsh) 'may well go back to *œ* Natan leah'. The present spelling may be due to the influence of Netley Abbey near, whose early forms (Letelie, Latalie) rule out identification with Natan leah. For Nettlebury see Heywood Sumner, *Earthworks of the New Forest*, p. 96.

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of places are correct, even if only approximately, we must conclude that the invaders led by Cerdic and Cynric landed on the coast of Hampshire and gradually spread northwards into what became later the kingdom of Wessex. And now a word must be said about the Jutes.

The Jutes were a Teutonic tribe that migrated from Jutland and settled in Southern Hampshire and the Isle of Wight. Another branch of the same tribe occupied Kent. Bede is our authority for these facts, which he states explicitly ; but his statements are confirmed by archaeological evidence. The cemeteries of the pagan period at Brockbridge near Droxford in the Meon Valley and at three places in the Isle of Wight have all yielded grave-goods which, in the opinion of experts, have affinities with the Kentish rather than any other culture-area. Jutish elements have even been suspected at Harnham Hill near Salisbury where an important cemetery was excavated in 1852.⁷ It is certain, however, that the Jutes occupied the whole of Southern Hampshire. That it included Bishop's Stoke (Eastleigh) is proved by the old name of this place Aet Yting Stoce (A.D. 960), as already pointed out by Dr Grundy.⁸ The place Ad Lapidem⁹ was in it ; and this, whether to be identified with Stoneham or elsewhere, cannot in any case have been far from Redbridge. The old name of the New Forest, Ytene, contains the same word.¹⁰

Now according to Asser, Stuf and Wihtgar were Jutes. Speaking of Oslac, Alfred's maternal grandfather, Asser says : ' Qui Oslac Gothus erat natione ; ortus enim erat de Gothis et Jutis,¹¹ de semine scilicet Stuf et Wihtgar.'¹² This is quite a definite statement that Stuf and Wihtgar were Jutes ; and if they were, then their ' relations ' Cerdic and Cynric must surely have been Jutes also.

What then has become of the ' West Saxons ' led by Cerdic and Cynric, and of that other mysterious body of ' West Saxons ' which landed at Cerdices ora in 514 ? Is it not obvious that a landing of West Saxons is an impossibility ? The West Saxons were so called because their chief territory, on the Upper Thames and Thame, lay to the west of that held by the East Saxons. It was a territorial distinction, and could not possibly have been applied to them before they

⁷ *Archaeologia*, xxxv, 259, 475.

⁸ *Arch. Journ.*, lxxviii, 112.

⁹ Bede, ch. iv, §16.

¹⁰ Florence of Worcester, ed. Thorpe, II, 44, 45. Stevenson, *Asser*, 168.

¹¹ The confusion of Goths and Jutes is, according to Stevenson, purely a verbalone.

¹² *Ed.* by Stevenson, p. 4.

PLATE I

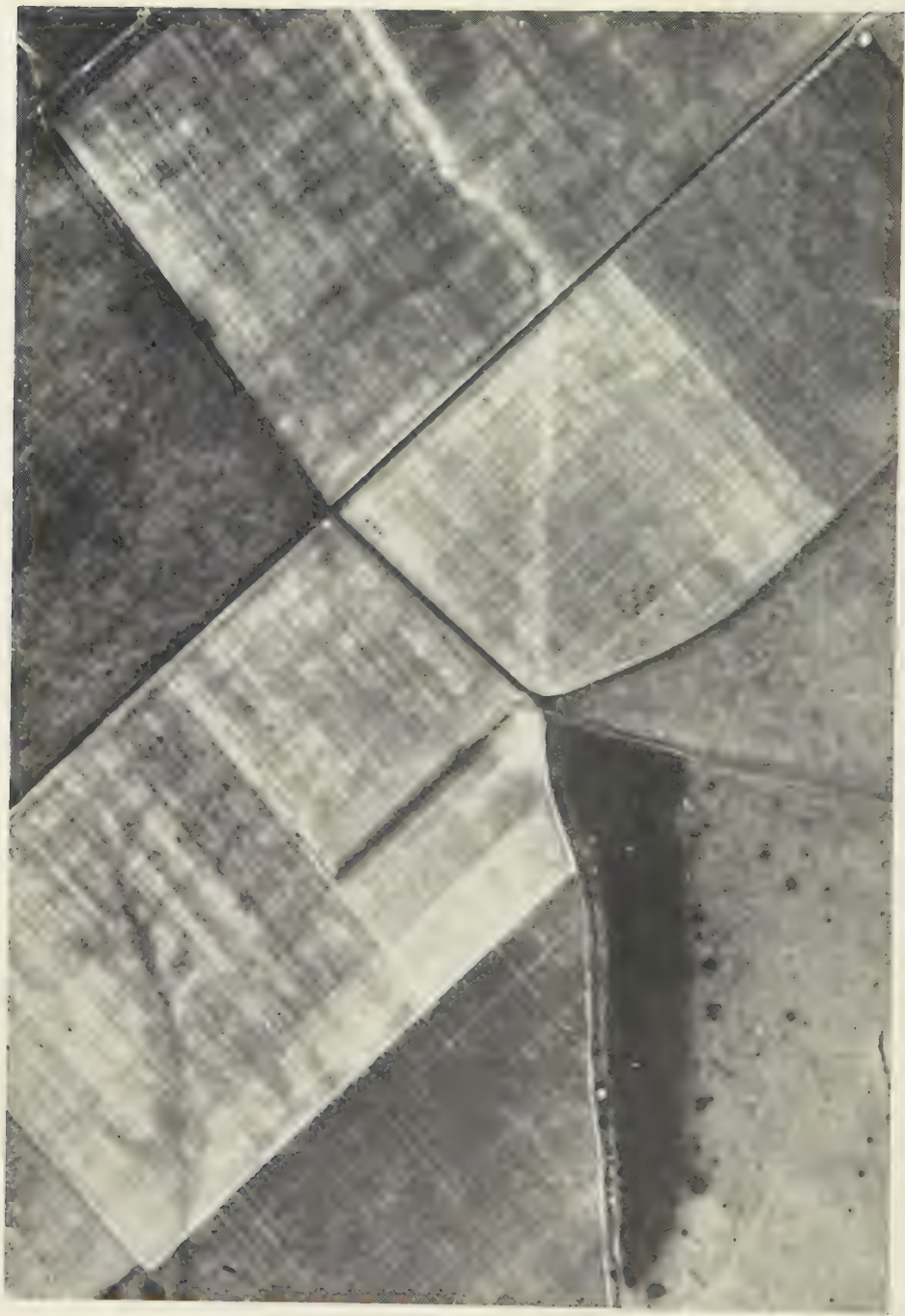


GRIM'S DITCH ON FYRDINGES LEA, SHOWING ALSO CELTIC FIELDS IN WHAT IS NOW
ARABLE LAND (COMPARE PLATE VI). WILTS 71 SE

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facing p. 444

PLATE II



GRIM'S DITCH ON GALLOWS HILL AND BREAMORE DOWN
(The copse is Jubilee Clump, Hants 54 NE)

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CERDIC AND THE CLOVEN WAY

settled in this particular region. Consequently, when the Chronicle states that Cerdic and Cynric became rulers of the 'West Saxons' in 519 before their subjects had even crossed the Avon, it is using language which is quite irreconcilable with the facts.

It may, however, be urged that the term 'West Saxon' was used proleptically by the 9th century compiler of the Chronicle; that the emphasis is on 'Saxon' rather than on the 'West', which became attached to them in later times; and that when Cerdic is described (sub anno 534) as the 'first king of the West Saxons', all that is meant is that he was ancestor of the kings of the later West Saxon dynasty, that is, of the kings of Wessex. There still, however, remains the difficulty that the founders of the West Saxon dynasty should have come from the province of the Jutes. May we not overcome it by invoking the blessed word *Gewissae*? Bede states categorically that the *Gewissae* and West Saxons were the same,¹³ that the one was merely an alternative name for the other. *Gewissae* means allies, and seems to imply a confederacy of tribes. May not a Jutish army have advanced, as the Chronicle describes, through Wiltshire, and have later imposed itself upon the inhabitants of the Upper Thames and Thame who—ex hypothesi archaeologico—were already Saxons¹⁴? Such a state of affairs is not necessarily inconsistent with the presence (between 556 and 571) of an as yet unsubdued British king as near as Cirencester.

Let us suppose, then, that Cerdic and Cynric were Jutes who led a Jutish army from south Hampshire northwards through Wessex, and whose successors established a kingdom there. The bulk of the inhabitants may already have been Saxons who had reached the Upper Thames region by other routes, or they may have been Britons. If, as Mr Leeds maintains, they were Saxons who had come along the Icknield Way from the Fen shores, certain resemblances between the social structure of Saxons and Anglians become more easily explicable.¹⁵ We are not obliged to produce archaeological evidence of Jutes in this region, since they may never have entered it in large numbers.

¹³ Bk. III, ch. 7.

¹⁴ If the archaeological evidence is valid it follows that either the Chronicle dates must be wrong, or else its facts—and it was Saxons, not Britons, who were conquered in 571. I am not prepared to admit the validity of the archaeological evidence; I merely assume, for purposes of argument, that it *may* be correct.

¹⁵ Chadwick, *Origin of the English Nation*, chapter IV.

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THE CLOVEN WAY¹⁶

We have seen that Cerdic landed at Cerdices ora, which I suggested was at Totton, and that later he crossed the Avon at Charford. I think it is possible to identify the exact route he followed.

Dr Grundy¹⁷ has established the fact that Saxon armies invariably followed important highways, generally ridgeways; and that in consequence the sites of battle-fields are to be looked for along such roads. It was indeed for this reason that they were called 'here-paths' (*here*=an army). Only along such roads could a large body of men have moved in those days without becoming 'entangled in the land'. It is unnecessary to enlarge upon this fact, which must be obvious to students of history and topography. Now it so happens that an old road (for the most part disused and forgotten) can be traced without a break from Totton, along the northern skirts of the New Forest to Charford, and thence across the Avon to Old Sarum. It is not, like some such, a mere figment of the map-reader's imagination; it can actually be seen today, in the form of deeply-cut trenches or traffic-ruts, produced by the combined action of use and weather. It was this feature which gave it its name, for at a certain point in its course (between Lyburn and Golden Cross, near Windyates) it has cut right through a narrow sandy spur called, from this, Cloven Hill.¹⁸ But everywhere along its course these traffic-ruts occur, as may be seen from the air-photographs here published. (Plates III-VI).

When I discovered this old road in 1912, I had no thought of connecting it in any way with Cerdic, but imagined that it was an old track from Southampton to Fordingbridge. I was led to examine it by noticing a trench marked by hachures on the Ordnance Map (Hants 64 NE), running southeastwards from Tachbury, a hill-fort. I thought it might have some connexion with a Roman road I was interested in. The aforesaid trench proved to be an old lane, long disused, which ran southeastwards into what is now called Calmoor Road; at Bearslane End it comes into the main Fordingbridge road and, under the name of Bear's Lane, enters Totton. (Fig. 6). Northwestwards I followed it over the shoulder of Tachbury hill, across Barrow hill to

¹⁶ In Dr Williams-Freeman's *Field Archaeology of Hampshire* (Macmillan, 1915) there is published an extract from a letter of mine to the author, written immediately after its discovery: pp. 435-6.

¹⁷ 'The Saxon battlefields of Wiltshire', *Arch. Journ.* LXXV, 175-194.

¹⁸ See note 2 at end, p. 457.

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the Cadnam river and Stagbury, where are four barrows on a steep-sided natural knoll. Furzeley common (the Stagmoore of 1620) has many systems of traffic-ruts and their general course may be observed from the top of Stagbury. Those we are following converge into a single, fairly deep cleft on the southern spur of the hill, but immediately spread out again and pass into a wood. I followed them thence to Dazel Corner. Here they cross the county boundary into Wiltshire, running parallel with the boundary a few yards to the north of it. They cross the Landford road¹⁹ near Lord's Oak just south of the cross-roads, and are plainly visible across Woodside bottom, north of No Man's Land. (Plate III). Here they separate into two distinct groups, which unite again in a copse (plate IV) at the southern end of Risbury hill. They cross the road near the saw-mill south of Lyburn Farm, and can be followed continuously through the beautiful pine-woods of Cloven Hill Plantation. Over Cloven Hill itself they converge into the before-mentioned deep cleft from which this part of the road obtained the name I have here applied to the whole of it. The positive aspect of the cleft is seen in a broad causeway where the washed-out debris has been spread in the course of ages as a small delta.

At this point I lost it in 1912, being under the influence of an erroneous hypothesis. Recently when I became interested in the site of Charford, it occurred to me that there should, by all the rules, be an important ancient highway leading down to the ford from the east, and I determined to look for it, beginning at the Avon. It was then that I first connected Charford with the Cloven Way.²⁰ I found a deep traffic-rut leading up from the disused ford along Charbridge lane. (Fig. 5). Passing up from Hale Dairy Farm along the bottom of a short valley it consists of a single deep cleft (a 'smugglers' way') of sufficient depth to be indicated by hachures on the Ordnance Map (Hants, 55 NW). This cleft gets less pronounced as it comes up on to the plateau, and at the Home Farm it falls into the modern road to Hatchet Green. It goes by Windmill Ball, an eviscerated mound, possibly prehistoric, and

¹⁹ This road is an old one, with a magnificent array of traffic-ruts accompanying it on the east, immediately north of its crossing of the Cloven Way. They can be seen in the open fields and heath north of the houses. Landford was suggested by W. H. Stevenson (Asser's *Life of Alfred*, 1904, 319) as being probably the Leonaford where Asser stayed for 8 months with Alfred in his *villa regia*.

²⁰ Since writing this I find that this western portion of the road has been briefly described by Mr Heywood Sumner, who also connects it with Cerdices ford. See Dr Williams-Freeman's *Field Archaeology of Hampshire*, 1915, 445.

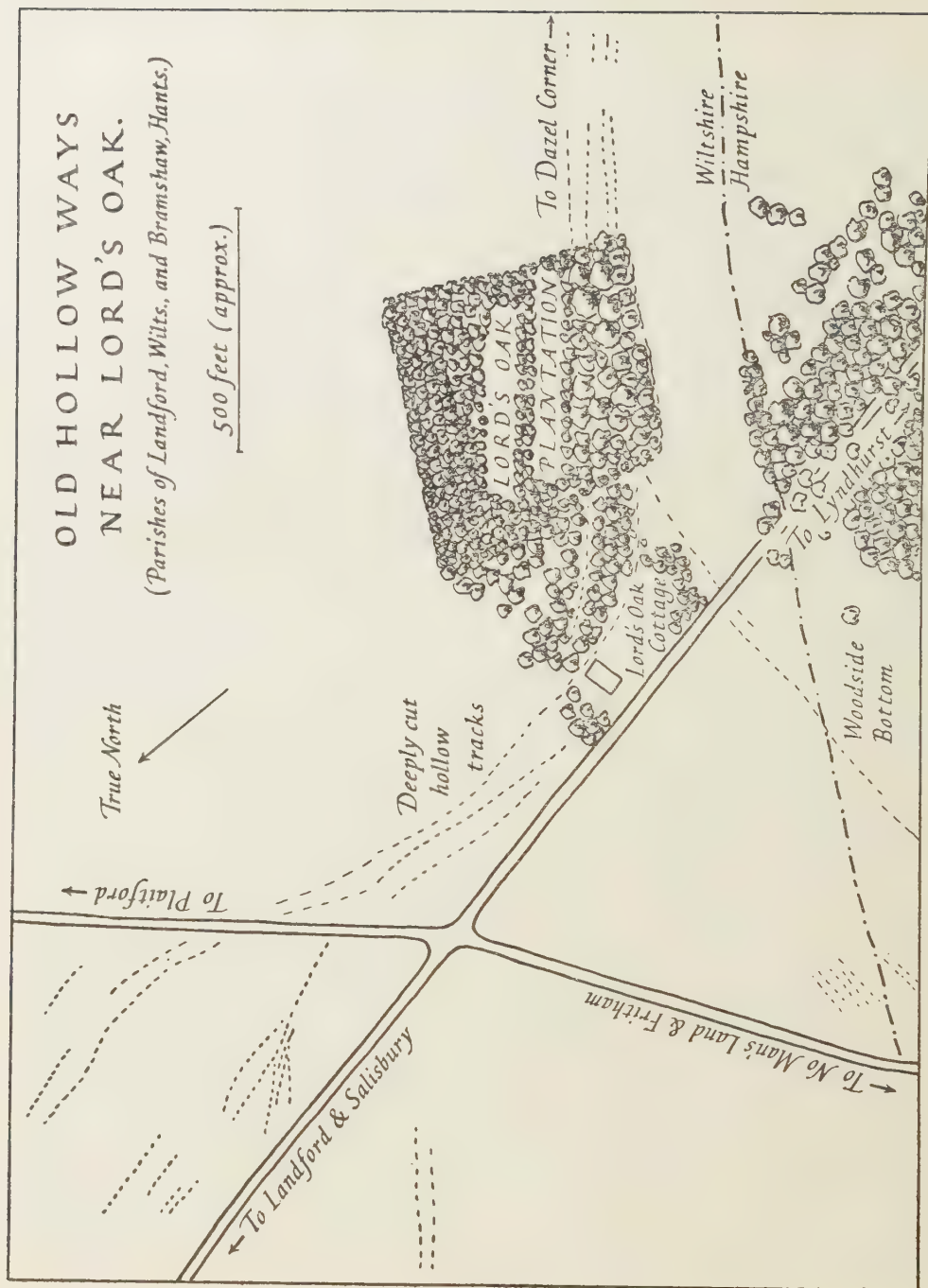


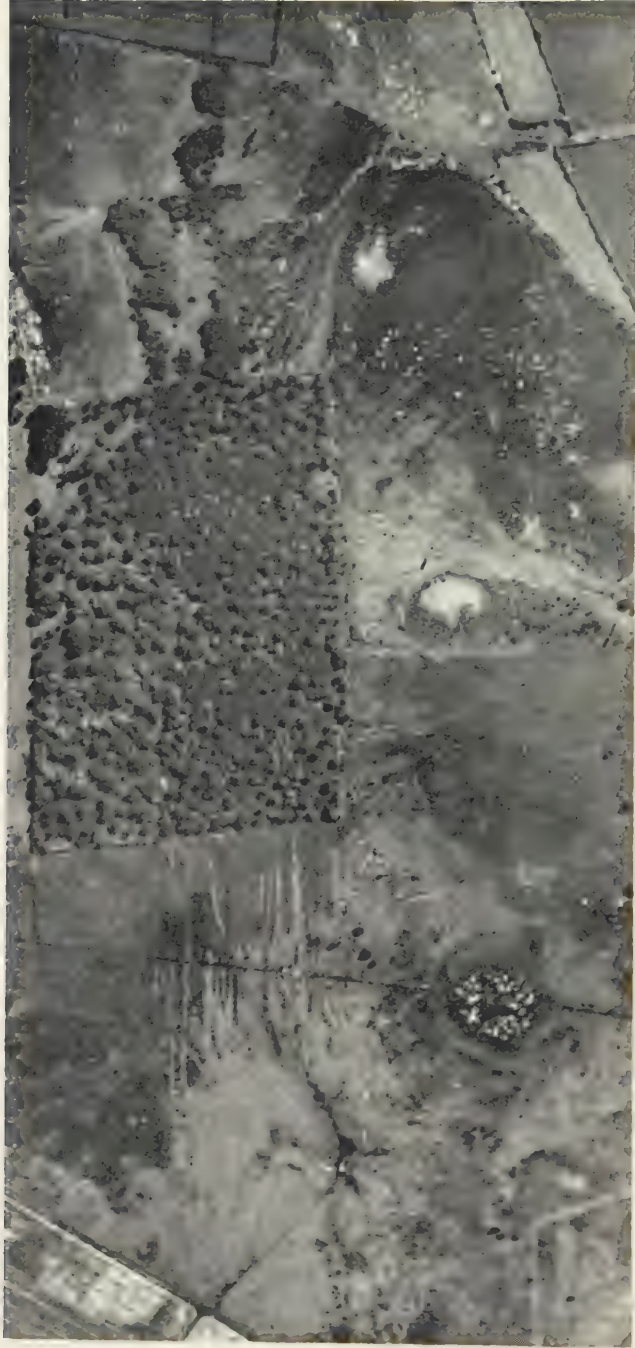
FIG. I

PLATE III



OLD HOLLOW WAYS NEAR LORD'S OAK
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PLATE IV



THE CLOVEN WAY OVER RISBURY HILL
Crown copyright reserved

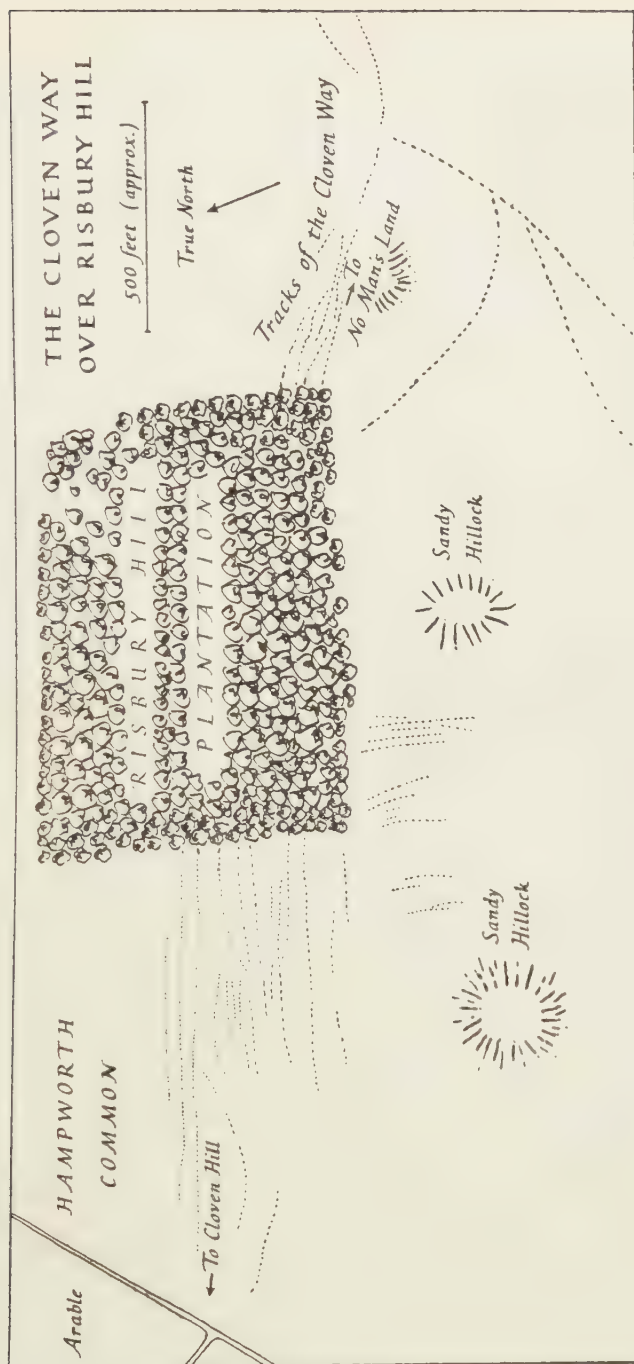
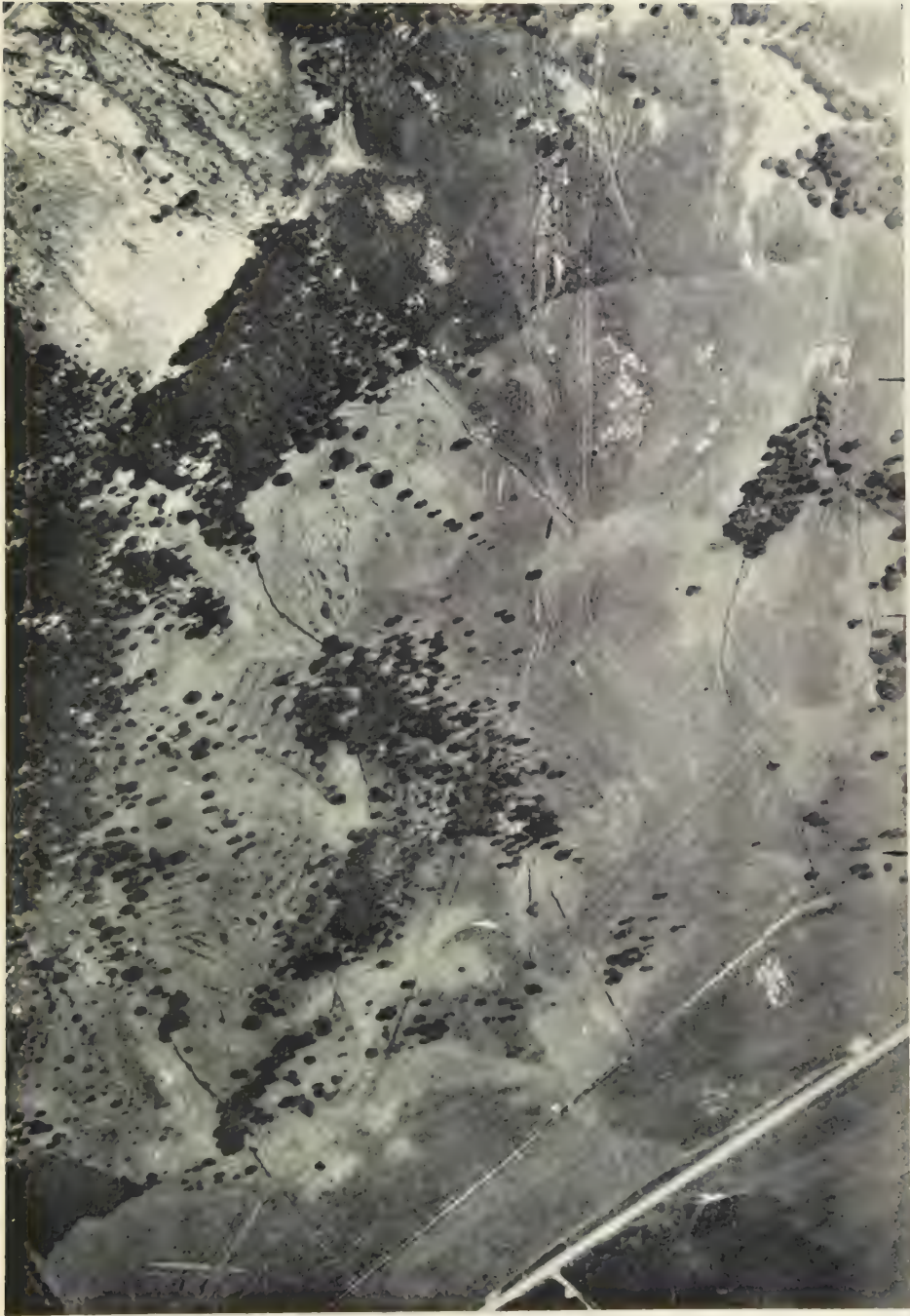


FIG. 2



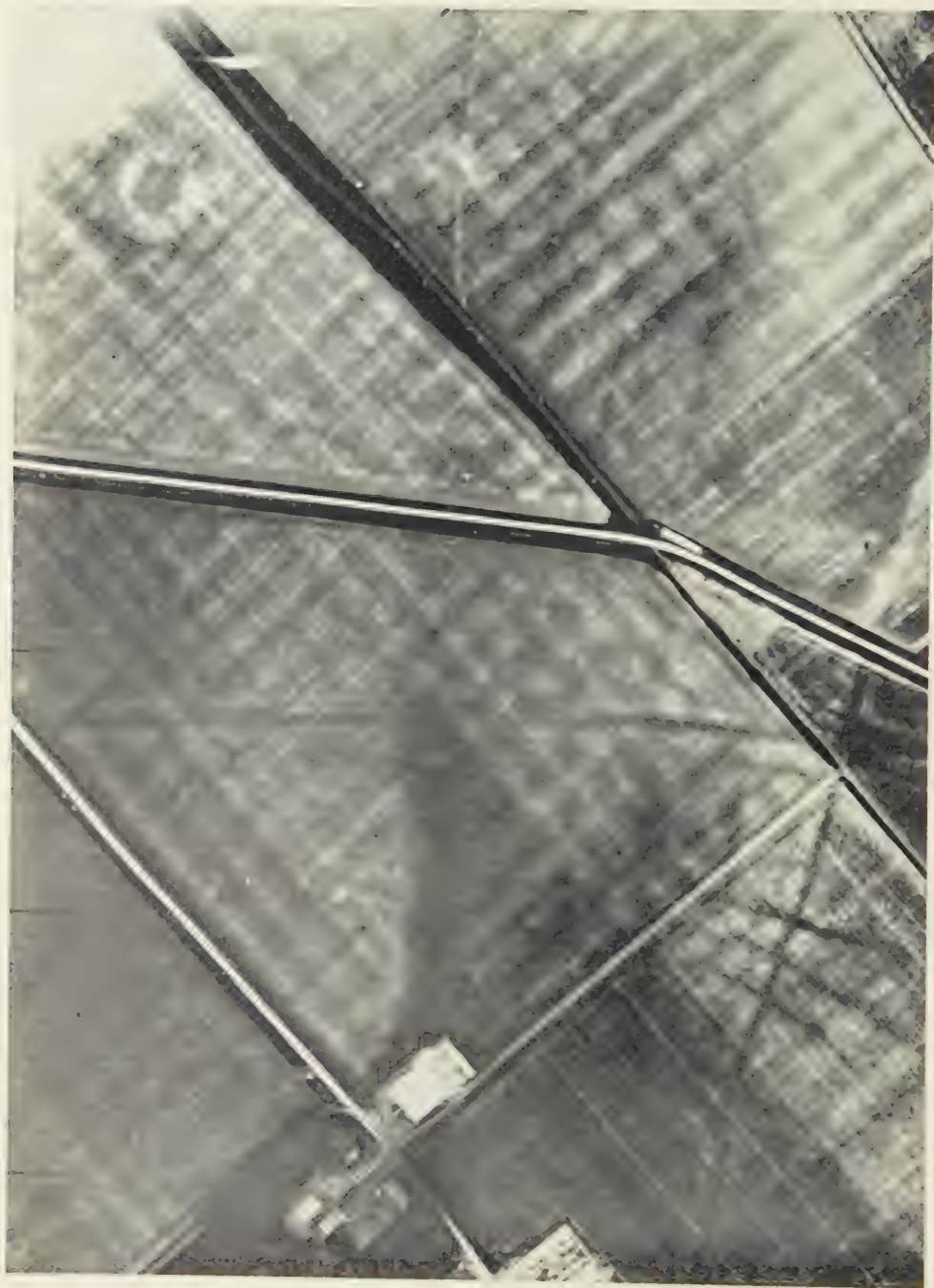
FIG. 3

PLATE V



THE CLOVEN WAY WHERE IT CLIMBS THE ESCARPMENT
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PLATE VI



GRIM'S DITCH AND OLD TRAFFIC-RUTS ON THE UPLANDS OF FYFE IN N. N. LEA
(now all arable land)

From 1894 Survey

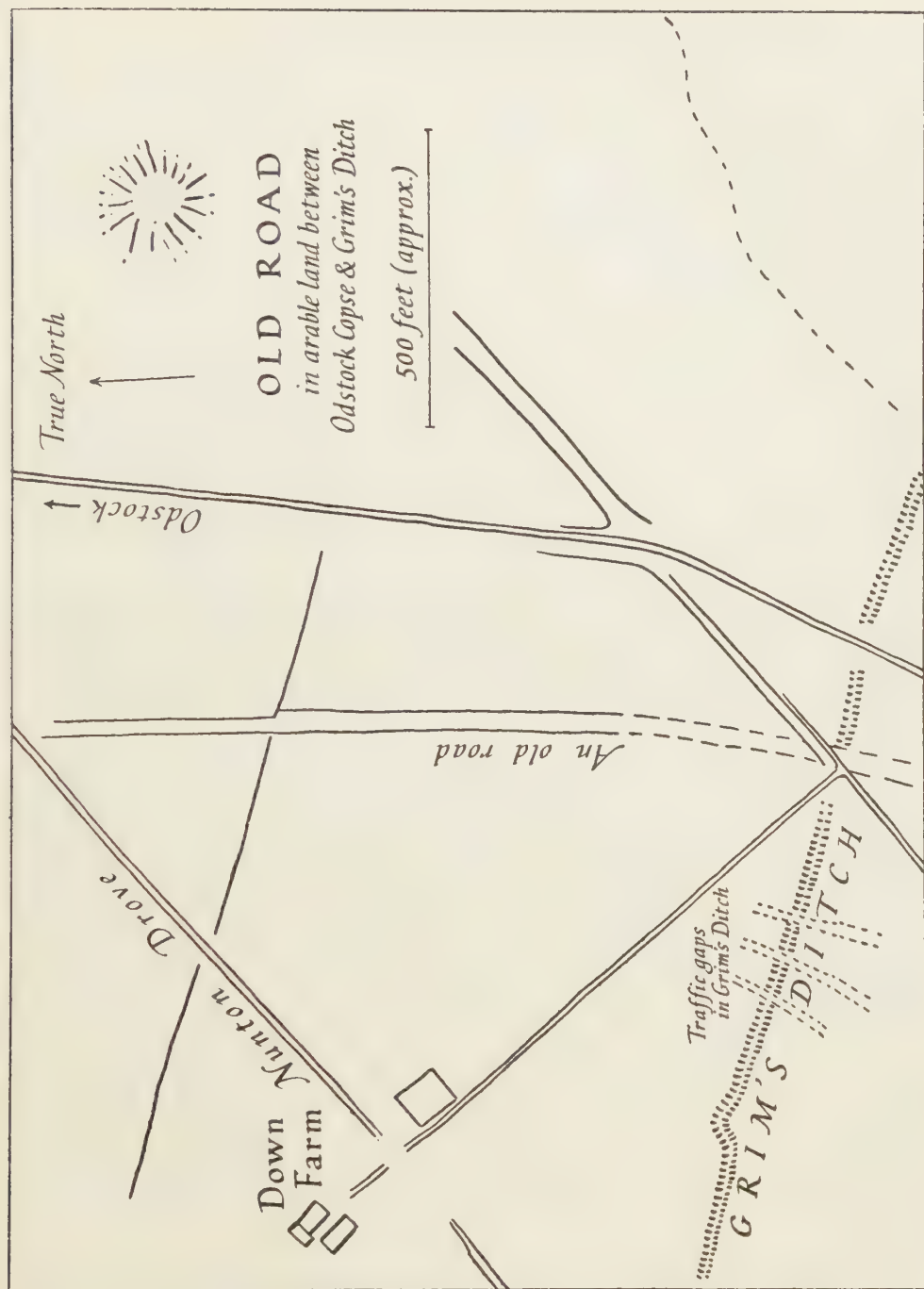


FIG. 4

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passes round the head of a valley out on to the open heath. Here, naturally, on the level the traffic-ruts become much fainter; but still they are discernible, and can be followed continuously, gradually converging on the Salisbury road which they cross obliquely near Golden Cross, a round mound called Jacob's barrow on the old one-inch Ordnance Map of 1807-8. From this point they descend by a winding spur to Pound bottom at the foot of the New Forest escarpment, and so to Cloven Hill.

But where exactly was Cerdices ford? There seem to have been *two* fords at Charford, each approached by an old road from the east. (Fig. 5). The southern ford was the one just described; it was approached from the east by an old dyked lane called Charbridge lane, and from the west by a lane past an old cottage called Colebrook. The northern ford seems to have been between Searchfield cottages and Lions lodge. Eastwards the road and county boundary coincide pretty closely; but in Rye Hill Copse the county boundary makes a short right-angle bend southwards, and its line is continued by a wide but shallow traffic-rut. There is another in Lodge Copse, parallel with and immediately north of the county boundary, which then sweeps round the head of a stream out on to the plateau at the (quite modern) hamlet of North Charford. The road continues southeastwards, joining the other at Golden Cross.

At which of these fords was the battle of 519 fought? I hoped, when I first set down these facts, that I had got a clue, if it could be interpreted; but after submitting it to Professor Stenton I feel obliged reluctantly to abandon it. The clue consisted in the name *fegerhilde ford* which occurs in the bounds of Downton.²¹ This had already been translated the 'ford of the victory' (feger=fair, hilde=battle), and it seemed to be an alternative name for Cerdices ford and to contain an echo of the battle of 519. But it must be translated differently, for *hilde*, though it undoubtedly does mean a battle, seems too poetical for a legal document.

There is, however, another bound-mark in the same document which may be cited in evidence of a battle. It is 'fyrdinges lea', and it lay west of the Avon and south of the Ebble, probably on Odstock down, in the vicinity of Odstock Copse. 'Fyrding' means an army on a war footing, and is a word that most aptly describes Cerdic's host. Near the place where 'fyrdinges lea' must have been there are

²¹ See note 3, p. 458.

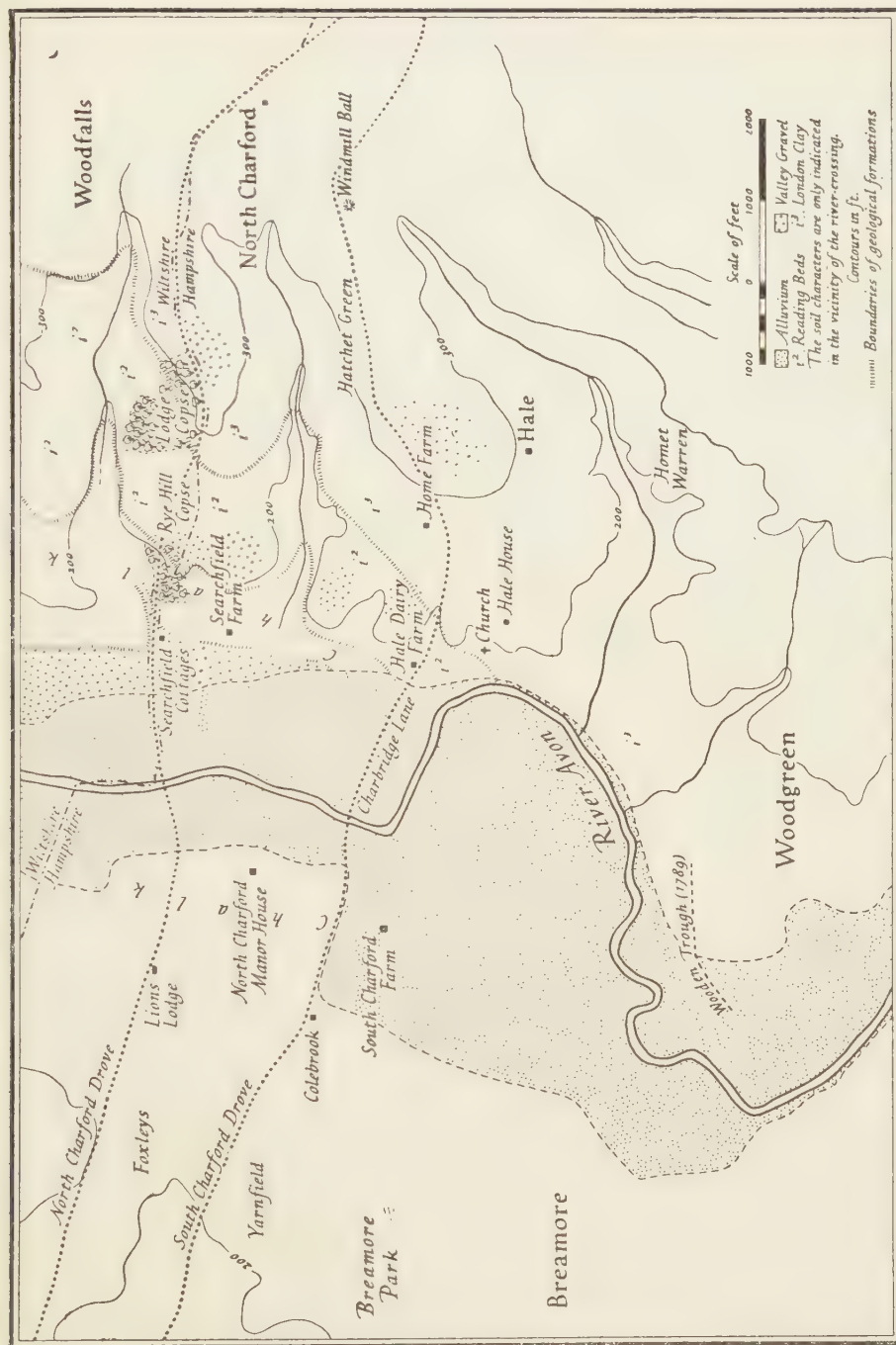


FIG. 5

THE TWO FORDS AT CHARFORD, AND THE OLD ROADS (SHOWN BY A DOTTED LINE) ACROSS THEM

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earthworks, and many traffic-ruts. (Plate VI). These I believe to be a continuation of the Cloven Way.

Whichever branch of the road we follow, we arrive ultimately at Wick Down, where we encounter a formidable earthwork called Grim's Ditch.²² (Plate II). But we come upon it from the rear. The ditch is to the west, and if this section of it belongs to our period and was built for military purposes—both of them assumptions—then it was made by people living on the east of it. The original CD vertical here was 8 feet, which seems rather big for a dyke of non-military purpose. I think it just conceivable that it may at this point belong to two periods; for elsewhere in its course this Grim's Ditch has the normal profile and characteristics of an earlier (prehistoric or Romano-British) boundary-ditch. Moreover elsewhere it has a bank on *both* sides, whereas here there are no traces of a bank on the west. The air-photograph (plate I) indicates that it was dug through some Celtic fields; but this does not carry us much further, and we must be content to note its presence and await enlightenment.

Across the arable land north of Wick Down the Cloven Way disappears, and we encounter the first serious check since we started. That it turned northwards at this point I have no doubt, and indeed there are some probable traces of it on air-photographs. (Plate VI). West of Odstock Copse it is quite plain, and soon after it merges into the existing road to Odstock and Salisbury.

It therefore crossed 'fyrdinges lea', and I suggest that this name does really contain an echo of the battle of Cerdices leah in 527. Cerdices leah must have been west of the Avon, for otherwise the battle of Charford was meaningless. It must also have been some distance south of Old Sarum, which was not captured till 552. One imagines that, having won a footing in the lower Avon valley, Cerdic's people consolidated themselves there; and that not until the best settlement-sites had all been occupied did they prepare to advance again. During this interval they may have settled in the Ebble valley. As evidence of pagan settlers may be cited the cemetery at Winklebury excavated by General Pitt-Rivers; and there are other scraps of evidence such as an urn from Bickton near Gorley (Avon Valley), a spearhead from Bishopston (Ebble valley) and a sword from

²² For a full description, with plan and sections and an account of its excavation, see Heywood Sumner, *Earthworks of Cranborne Chase*, 1913, 57-62.

CERDIC AND THE CLOVEN WAY

Toyd.²³ On a bluff called Witherington Rings, on the east side of the Avon 8 miles SE of Salisbury, were found in 1874 a skeleton with an iron sword and shield-boss, a knife, a ferule and an iron object like a strike-a-light.²⁴ The celebrated cemetery at Harnham Hill²⁵ lies *south* of the Avon, immediately by the side of our road just before it enters Salisbury.

Whether these finds must all necessarily belong to a period as early as the first half of the 6th century is, I think, doubtful. They are however legitimate evidence as things stand at present. They may therefore be attributed, with this qualification, to the years of inactivity between 519 and 552. During this period no fighting except the battle of Cerdices leah is recorded by the Chronicle, which is concerned only with events in the Isle of Wight (sub annis 530, 534, 544).

It would not be possible here to follow the fortunes of the Saxon (or Jutish?) adventurers further north; but a word must be said about their route. If the reader will consult a map of Salisbury Plain he will see that, although many old roads converge at Salisbury (*not* Old Sarum, where the Roman roads met), and may therefore be regarded as ending there, the modern road from Salisbury to Old Sarum is a direct prolongation of the Odstock road, that is to say, of our Cloven Way. This road continued northwards, probably along the line of the lost Roman road to Cunetio (at Mildenhall, where a pair of saucer-brooches were found in 1827). As a medieval and later road connecting Salisbury with Marlborough, its whole course through Everley and Burbage is well authenticated and well marked on the slopes by traffic-ruts. If the line be continued beyond Marlborough we reach Barbury Castle—the Beran burh where Cynric and Ceawlin defeated the Britons in 556.²⁶

We have seen that the ground between Totton and Barbury, a distance of nearly 60 miles, provides a reasonable line of advance along a road whose existence is proved by documentary references, and whose traffic-ruts (though in their present form doubtless of a later age) are

²³ These objects are now in the Salisbury Museum, and I am indebted to Mr Frank Stevens, the Curator, and Mr Heywood Sumner for telling me about them.

²⁴ Heywood Sumner, *New Forest*, 1917, 86–7. Extracts (not published elsewhere) from Dr H. P. Blackmore's note-book.

²⁵ *Archaeologia*, xxxv, 259, 475.

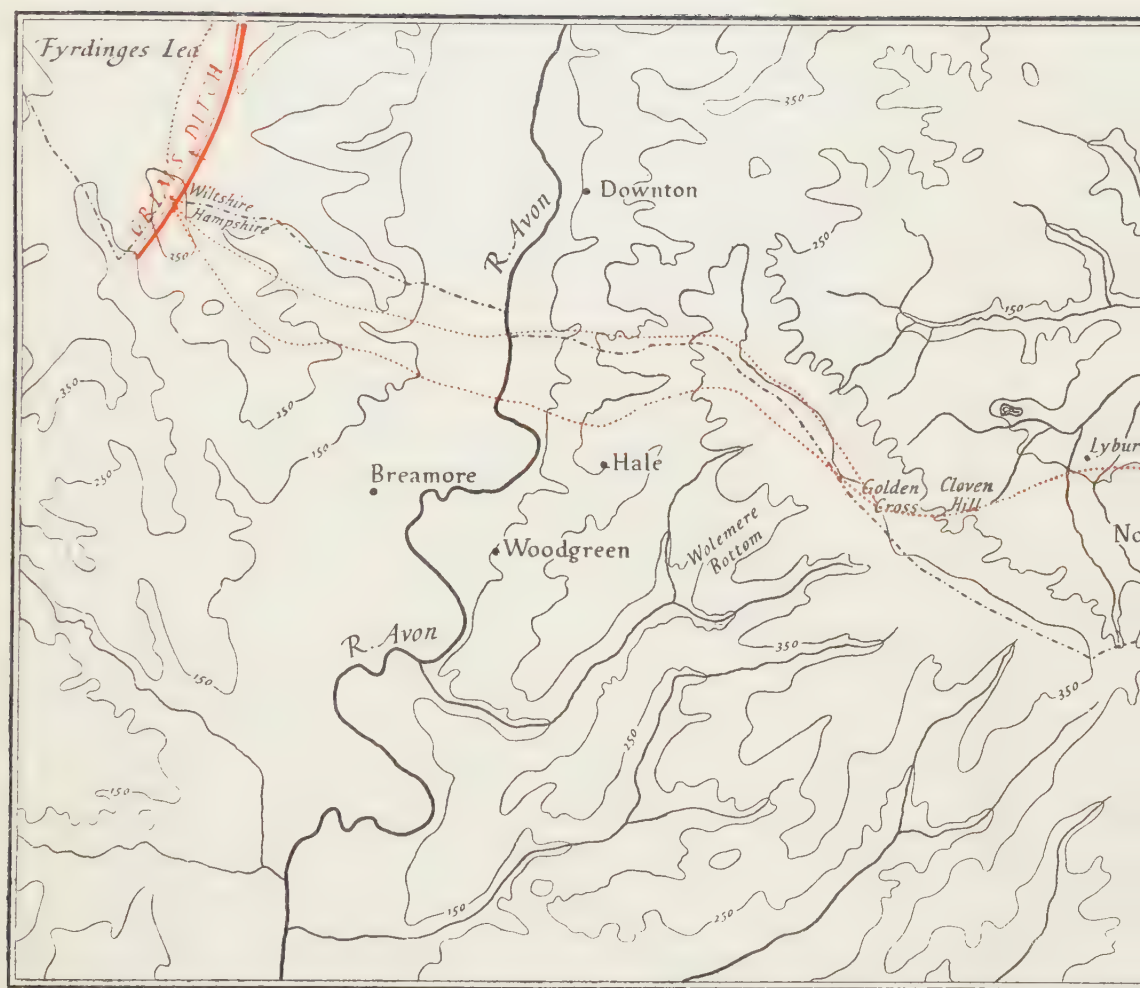
²⁶ Close by is Ellendun where Egbert of Wessex defeated Beornwulf of Mercia in 823: see Dr Grundy in *Arch. Journ.* lxxv, 181–7, where the northward continuation of the same road is described.

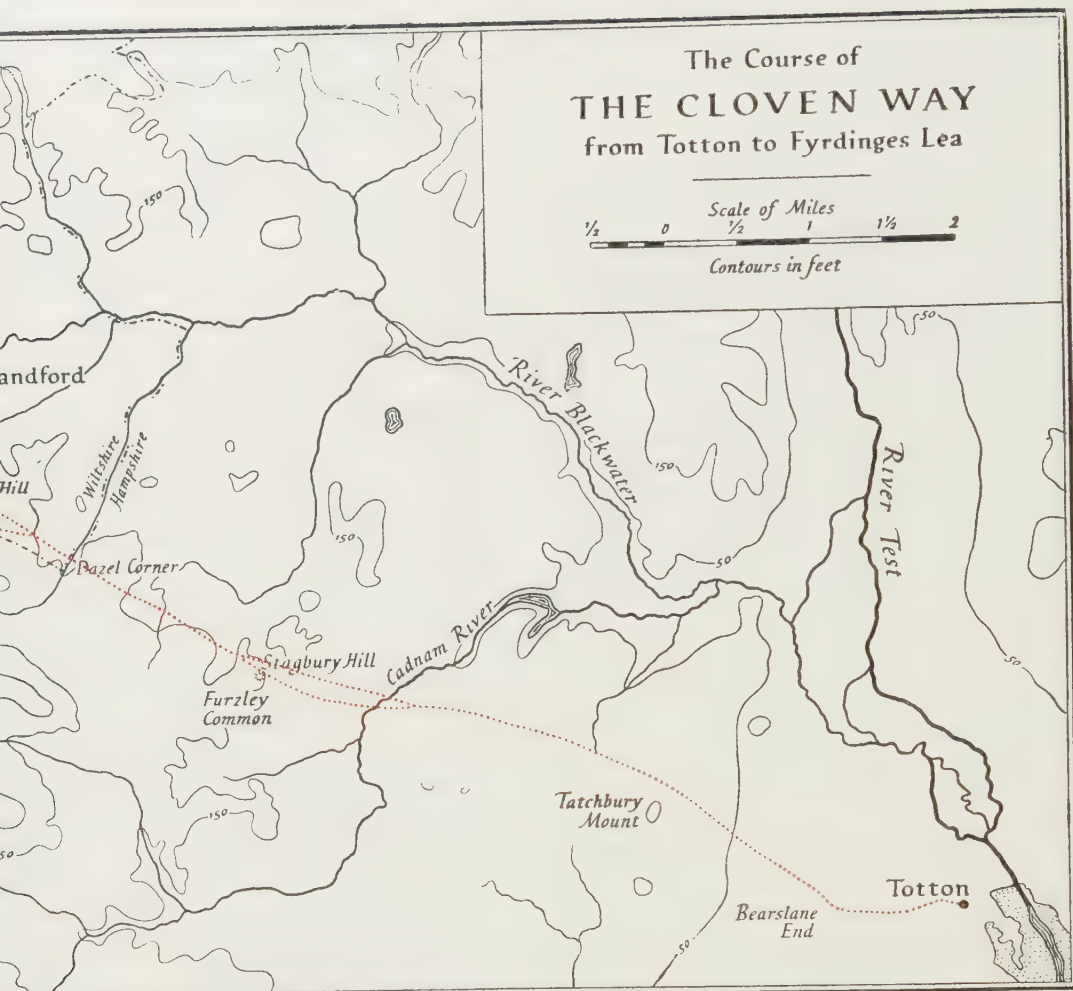
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still in evidence. All four mainland battles can be identified with places on this road, in three instances with certainty. The course of the Cloven Way from Totton may not seem the most direct route to Old Sarum, but it may well have been the shortest and the easiest. The route to be inferred from the Chronicle represents rather the general line of advance of an invading host, which in each campaign would follow the line of least resistance. Such would naturally be along an important and well-known highway. But each advance probably had a limited objective, consisting of the acquisition and settlement of new territory. The result in either case is much the same, but we must beware of attributing to the original settlers projects which they are most unlikely to have formed. They did not land with their luggage labelled 'Barbury via Old Sarum'. Good open arable land, however, is not to be found in abundance round the head of Southampton Water—at any rate on the west side. The need for expansion must soon have been felt; and as so often before in our history the dry but well-watered chalk lands exerted a powerful attraction, though they could only be taken by force from the Britons. The Cloven Way is the shortest route to the chalk, which is first encountered in Rye Hill Copse above Charford. The road may well have been in use in yet earlier times (though there is no evidence of this) as a thoroughfare between the villagers of Cranborne Chase and the sea. Tachbury may be the predecessor of Totton (fig. 6).

But even as an early route to Old Sarum there is much to be said for the Cloven Way. It is only four miles longer than the direct distance in a straight line. True, it involves crossing the Avon twice, and the Ebble once; but neither passage would have presented great difficulties, and in any case a more easterly route would have involved a crossing of the Winterbourne (thus cancelling out one of the others), and two separate belts of tangled, often waterlogged, country, on either side of Dean Hill. A group of settlers in the Totton district, if they wished to acquire fresh arable land, would most naturally turn to these regions, which, as we are told, they did in fact acquire.

For these reasons I conclude that the account in the Chronicle is a trustworthy historical description of events which actually took place. It is confirmed (in 'fyrdinges lea') by what may well be an early traditional record of these events set down within 150 years of their occurrence. It is not impossible that this same tradition may have survived to a later date when racial distinctions between Jute and Saxon had been obliterated, or were discreetly forgotten by the Chronicler.





CERDIC AND THE CLOVEN WAY

Surely no mere series of suggestive place-names could have given rise to a narrative that, when studied topographically, is seen to be eminently plausible.

Note 1. WIHTGARA BURH

In his *Asser* (pp. 172-5) Stevenson points out that 'it is not easy to derive [Carisbrooke] from Wihtgaraburh or Wihtgares-burh'. It might even be said to be impossible. The early forms of Carisbrooke (Caresbrook 13-14 cc.) suggest that it is compounded of two words (caerse broc) meaning, as Dr Grundy has suggested (*Arch. Journ.* LXXVIII, 145) 'watercress brook', a very suitable name for the small stream, now the Lukely brook, on which the village stands. At the time when these explanations were given the early form of the name of Carisbrooke Castle (as opposed to the village) was to be found in Worsley's *Isle of Wight* (1781) and the *Calendar of Miscellaneous Inquisitions*. This form is Wyghtberg; it occurs in a list of beacons compiled in 1324, and the original document in the Public Record Office (abstract in *Cal. Inq. Misc.*, 1916, II, 209-10, file 99, 10) has been published again in the current number of the Hampshire Field Club's *Proceedings* (vol. x, 1931, 255: 'The Beacon system in Hampshire', by H. T. White). There is no reason to doubt that Wyghtberg is here used to describe Carisbrooke Castle. The identification suits the context admirably, and the site lies in the Hundred of East Medina. 'There is now no village in the Isle of Wight with the suffix *-bury* or *-borough*' (Stevenson, p. 174), and we now know that Carisbrooke Castle occupies the site of a walled fortress of Roman construction. This doubtless was the *burh* of Wihtgara burh.

The name Wyghtberg plainly means the 'fortress of Wight'; and Wihtgar, unless he took his name from the island, becomes a very shady character indeed. There can, however, be little doubt that, whatever may be the exact significance of the Chronicle story, Wyghtberg is the Middle English derivative of Wihtgara burh.

Note 2. CLOVEN WAY

The name Cloven Way occurs twice in depositions relating to the out-bounds of Melchet Forest, A.D. 1620 (P.R.O., Exchequer Dep., Wilts, 17 Jas. 1, no. 21). 1. 'From Dearesall (now Dazel Corner) to Moore Close, and thence to Chilford Lake, from thence to Dunwoode, . . . to Deane Hill, from thence to Ashdeanes Cross, from thence to Langley Wood, from thence to Cloven Waie, and from thence to

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Deresall'. 2. 'From Shadie Oake to Langlie Woode, thence to Ashdeanes Cross, thence to Meane Wood, from thence to Gatmoore Pond, from thence to Donwoode Lake, thence to Abbots Pond, thence to Stagmoore Hill, thence to Dersill, thence to Cloven Waie, thence to Tymbrell Lane, and soe to the Shadie Oake aforesaid'. Many of the bound-marks in these documents quoted cannot be identified on the Ordnance Map; for instance, Chilford Lake, Ashdeanes Cross, Shadie Oake, Meane Wood, Gatmoore Pond, Tymbrell Lane. If any reader should, from local knowledge, be able to do this, or to obtain knowledge of old estate-maps of the 17th century, I should be glad to hear of it. The early topography of Melchet is both interesting and obscure.

Note 3. FEGERHILDE FORD

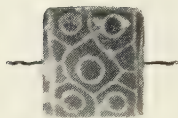
In the boundaries of a grant of land at Duntun (Downton, Wilts) made by Cenwalh (643-672) to Winchester Cathedral, the following passage occurs:—Anlang herepathes to fobban wylle. anlang herpathes to thas hagan ende to fegerhilde forde. on thone hagan. on ceorles hlawe. on cradan crundul. (Along the highway to Fobba's spring; along the highway to the end of the enclosure at the ford of the fair slope (?); along beside the enclosure to the churl's hill (or barrow); to crada's crundle (or, reading crawan, to the crow's crundle). The general course of the bounds is clear. Fobban wylle may be identical with the Folke well of the 1280 perambulations.

Unfortunately, however, there is no clue to the exact site of this well or spring. All we know is that the bounds are crossing the plateau between Bramshaw wood (brember wudu) and the Avon, and that they are following an old highway along it. As we saw above (p. 452) there are two possible courses, and we do not know which branch the bounds follow.

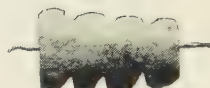
The bounds quoted above are published in full in Birch. *Cart. Sax.* I, 27. Similar versions are given in *Cart. Sax.* I, 391; III, 862, 863, and in Kemble, *Cod. Dip.* III, 698. The Saxon boundaries of Downton are discussed by the Rev. A. du Boulay Hill in *Wilts Arch. Mag.* xxxvi. It was he who first connected fegerhilde ford with Cerdic and the battle of 519; and it was his interpretation that I was tempted to adopt (fegerhilde ford=fair battle ford). Professor Stenton, however, says that the translation cannot stand. While naturally bowing to his authority, I cannot help hoping that the other explanation, which suits its context so admirably, may one day be found acceptable.



1



2



3



4



5



6



7



8



9

1, Copper-blade

2, 3, Beads, Mohenjo-daro

4, Sickle-flint

5, Silver Ring

6, Toy animal, Kish

7, Rectangular bead, Mohenjo-daro

8, 9, Pottery heads, Kish

Further links between Ancient Sind, Sumer and elsewhere

by ERNEST MACKAY

DURING my leave to England in the spring of 1930, I revisited Iraq to acquaint myself further with the objects on view in the Baghdad Museum. As a result of excavations since I left that country the museum had acquired a large increase of material that I was not familiar with before, and I am now able to add to the links between the cultures of the Indus Valley and of Sumer which I have already pointed out in *Mohenjo-daro and the Indus Civilization*,¹ to be published almost immediately.

On plate 146, fig. 43, of that book there is reproduced a red carnelian bead, bearing a somewhat elaborate design in white, that was found in the uppermost levels of the *vs* area. Several almost exactly similar beads found by Woolley in the early graves at Ur are now in the Baghdad Museum. The slight difference between the two designs, in that there are concentric circles on this first found Indian bead of the type in place of the single circles on the specimens from Ur, is negligible in face of the general similarity; and especially in view of the fact that another of these beads has since been discovered at Mohenjo-daro with single circles, so that the design is identical with that on the beads from Ur (fig. 2).

It should be noted that on none of these beads do the oblique lines join the corners, an arrangement which, though somewhat unexpected, was probably regarded for some reason as essential to the design.

From the somewhat enlarged illustration of the second Indus Valley specimen, it will be seen that the craftsman was not entirely familiar with the design; its lines show evidence of hesitation. It is conceivable, indeed, that this particular specimen is a local copy of an imported bead.

¹ Edited by Sir John Marshall (Probsthain, 41 Great Russell street, W.C. 1). In the numerous references to plates in this book the abbreviation M-D is used.

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The beads from Mohenjo-daro appear to be slightly squarer than the Sumerian specimens, but it is possible that my hurried sketch of the latter has erred in this respect. The shapes of these beads are, of course, inconclusive as evidence of a connexion between the two countries, but the quite definite resemblance in design, especially in conjunction with the difficult technique, proves beyond any doubt that the beads found at Mohenjo-daro and Ur were made in one and the same country—whether this was India or Sumer we do not yet know; the beads may conceivably have come from a third country in the course of trade.

Woolley found the beads of this type in the Royal graves (c. 3500–3200 B.C.) of Ur. Personally, I would like to date these graves later for reasons to be stated at the end of this note. But in any case, we have in these beads proof that the civilization of Mohenjo-daro can hardly be dated later than 2750 B.C., and it is quite possible, if Woolley's chronology be correct, that even the latest levels of Mohenjo-daro date from before that time, for, it should be repeated, the beads in question came from the uppermost strata.

In connexion with these most interesting decorated carnelian beads,² Mr N. G. Majumdar of the Archaeological Survey of India has drawn my attention to a decorated carnelian bead found by him at a site called Chanhu-daro, Nawab Shah district, Sind, the lowest levels of which belong to the Indus Valley culture. It is a flat oval bead with a figure-of-eight design, and he points out that it is exactly similar in shape, material and mode of decoration to a bead that I found at Kish and illustrated in my second report on that site.³ There are yet other examples of these decorated carnelian beads which serve to link the two civilizations; one⁴ exactly resembles, both in shape and in its marginal decoration, a bead found at Kish and approximately dated to 3000 B.C.⁵

Another design in carnelian unearthed at Kish⁶ also occurs, I believe, at Ur. It is singularly like a design that is exceedingly common at Mohenjo-daro, especially as shell inlay and on nose studs.⁷ There

² Mr Horace Beck prefers to call them 'etched carnelian'.

³ *Sumerian Palace and A Cemetery at Kish*: Field Museum, Chicago, pl. 60, f. 55.

⁴ M-D, pl. 146, f. 44.

⁵ *Sumerian Palace*, pl. 60, f. 62. The white portions of the bead are represented in black.

⁶ *Sumerian Palace*, pl. 60, f. 54. ⁷ M-D, pl. 152, f. 14; 155, f. 48, 49; 158, f. 10.

is, however, the great difference between the Sumerian and Indus Valley examples that in the former there are five loops, whereas there are four in the latter. Judging from its popularity at Mohenjo-daro, the design must have been regarded with especial favour; and I have a suspicion that the bead from Kish was an inaccurate copy of those of Mohenjo-daro, although it should be remembered that the number five seems to have had an especial significance in Sumer. In either case, the Kish specimen could hardly have been made in India.

It would certainly be of great interest if we could discover whence these carnelian beads were imported. As I have already stated, they are extremely rare at Mohenjo-daro, and that they were highly valued is proved by their being imitated in steatite, on which the red ground for the design was produced by means of a burnished haematite paint. Perhaps Persia, where I believe the painting of carnelian is still carried on, was the source of supply both for Sumer and Sind; if so, that country could also have supplied Russia where, according to Mr Beck, decorated carnelian beads have been found, although some are of comparatively late date.⁸

The rectangular bead illustrated here (fig. 7) comes from the upper levels of Mohenjo-daro. It measures 1.6 ins. long by 0.26 ins. thick, and in shape it is very like a bead found in the grave of Queen Shubad at Ur (c. 3100 B.C.).⁹ I believe I am right in stating that these beads are both agate, though the one from Mohenjo-daro is not quite so translucent as the example from Ur. Beads of this shape are so very rare at Mohenjo-daro that they may have been imported.

Another bead shown (fig. 3) still more closely resembles beads that have been found at both Kish and Ur. Its shape is very peculiar in that the sharp edges of the longer sides are notched. This particular bead is made of some kind of paste which was at one time glazed; it is rhomboidal in section and measures 0.5 in. long by 0.1 in. thick. There are specimens of this type of bead from Ur in the Baghdad Museum, and two examples are figured in the Kish II report.¹⁰ The latter are made of shell and were dated to c. 3100 B.C., as they were found in the A graves. The three specimens that have been found at Mohenjo-daro are made of either alabaster or faience. The scarcity of

⁸ *Archaeologia*, 1929, LXXIX, 144.

⁹ *Museum Journal* (Univ. of Penn.), xx, nos. 3-4, pl. v.

¹⁰ *Sumerian Palace*, pl. 60, f. 39-40. Also p. 186.

these beads at Mohenjo-daro as compared with their relative plentifulness in Sumer suggests that they came to India from the latter country. If this be so, the curious shape and the comparatively inexpensive materials in which they were made suggest that they had an amuletic rather than an aesthetic value. They are very similar in shape to the reversible sickle-flints (fig. 4) that are so often found on ancient Sumerian sites, and it is possible that the beads are actual copies of the flints. If so, it is not at all improbable that the beads were worn as fertility charms, since the sickle-flints were so closely associated with agriculture.

The terminals of flattened hemispherical shape¹¹ which are so frequently found at this site are made, as has already been stated, in gold and copper, and, more rarely, in faience. In the latter material they are either solid, except for the holes to take the strings, or else their sides are very thick, a necessary precaution with such a brittle material. I find no mention of terminals of this shape ever being found at early Mesopotamian sites. I myself found none at Kish, nor have any from Ur been illustrated. That they will eventually be found in that country, may, however, be considered as probable, especially as they have been found at Byblos, where they date from the period of the Fourth Dynasty of Egypt. These Syrian examples, which are of faience, are solid and have several holes pierced through the straight edge instead of through the terminal to its apex; *i.e.*, the ends of the strings of beads were tied to, and not passed through the terminals. Whether these terminals are Egyptian or Indian in origin or invented independently, is uncertain; hollow gold terminals which exactly resemble the examples from Mohenjo-daro have also lately been found at Gizeh in Egypt by Prof. Selim Hassan, who dates the tomb in which they were found to the Fourth Dynasty (*c.* 2900–2750).¹² The latter include—as far as I can judge from the published photographs—a long narrow gold plate pierced with holes to seal up the open end of the terminal, as at Mohenjo-daro.

Of still earlier date are some representations of hemispherical and triangular-shaped terminals with four or five undoubted strings of beads attached (fig. 10). These are depicted on four painted pottery sherds found at Tépé Douecya, some three kilometres north of Susa, and

¹¹ M-D, pl. 149, f. 1–3; 151, f. b.

¹² *Illustrated London News*, 21 February, 1931, p. 296.

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dated by M. de Mecquenem to the time of the First Period of the last site (c. 4250 B.C.).¹³

I have already compared terminals of this shape with some belonging to the Eighteenth Dynasty, but it is of interest to see that in Egypt the type goes back to much earlier days.

A copper blade¹⁴ found in one of the upper levels, though termed a spear-blade, may conceivably have been a knife (fig. 1). An exactly similar blade, but with a slightly longer tang, was found in the A mound at Kish and dated approximately to 3100 B.C.¹⁵

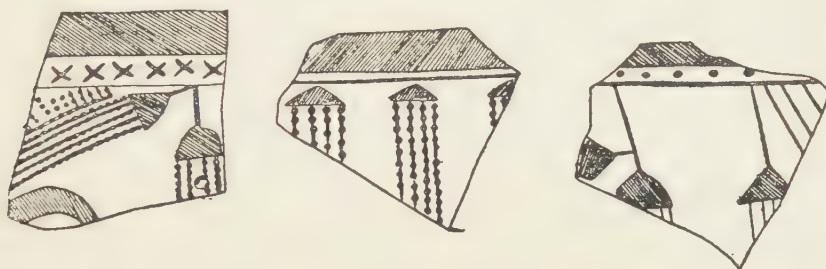


FIG. 10. FRAGMENTS OF PAINTED VASES, TÉPÉ DOUECYA

Until five years ago it seemed that cubical dice were unknown in the early civilizations, but we now have many examples from Mohenjo-daro,¹⁶ and one has been found at Ur, where it has been dated to an early period. The arrangement of the numbers in the specimen from Ur differs slightly from the arrangement on the dice from Mohenjo-daro, and a rosette even takes the place of one of the numbers. The only really ancient cubical die that I know of west of Suez is a pottery one with painted points, found at Tel el Amarna by the Egypt Exploration Society in 1921. Curiously enough, the numbers are apparently arranged in exactly the same way as at Mohenjo-daro, that is to say, 1 is opposite 2, 3 opposite 4, and probably 5 opposite 6.¹⁷ Sir Flinders Petrie has illustrated a number of cubical dice which he has found or

¹³ *Mém. Dél. en Perse*. t. xx, p. 113, f. 19 (6-9).

¹⁴ M-D, pl. 136, f. 3.

¹⁵ *Sumerian Palace*, pl. 39, group 3, f. 4.

¹⁶ M-D, pl. 153, f. 7-10.

¹⁷ I could not see one side of this die in the case in which it is kept in the Ashmolean Museum, Oxford.

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bought in Egypt,¹⁸ but they are all of Ptolemaic or Roman date. Some are numbered as at Mohenjo-daro, some in the modern way, and others quite indifferently. The fact that the cubical die occurs as far back as the Eighteenth Dynasty in Egypt is important, as it disposes of the suggestion that the Greeks were the means of introducing it into the West.

I took the opportunity when at Baghdad to examine the tetrahedron of pink limestone found by Woolley at Tell al'Ubaid and described by him in the report on that site,¹⁹ and I find that in shape it is exactly similar to the many that have now been found at Mohenjo-daro.²⁰ Of these only one specimen, however, is made of pink limestone; the remainder were made of a paste which was coated with a glaze, once either green or blue in colour. Gamesmen of the same form and material have also been unearthed by Watelin at Kish. Whether the peculiar shape of these tetrahedral gamesmen originated in Sumer or India, it is impossible to say. I am not aware of their occurring outside these two countries.

When at Kish, I found a number of thick pottery rings, whose internal diameters average 1 in., and dated them to approximately 3100 B.C. As they are much too small to have been worn as bracelets, and for the same reason would have been unsatisfactory as stands for pointed and round-based pottery, it seems likely that they were used in a game—like quoits.²¹ Rings of the same type and material are frequently found at Mohenjo-daro,²² and it is possible that here also they were used as playthings; experiment has shown them to be practically useless as pottery stands.

It has already been pointed out that a framed Greek cross was used as a decorative motif at Mohenjo-daro, and that the same device was also well known in ancient Sumer, as well as being used as an ornament on seals of the Kassite period. But its repetition as a decorative design, as, for instance, on the square bezel of the silver ring²³ is unusual. Nevertheless, it has been found duplicated on one of the squares of shell of a gaming board (no. U9907) discovered by Woolley at Ur and dated by him to between 3500 and 3200 B.C. Additional interest is given to the design in this latter case by the

¹⁸ 'Objects of Daily Use', pl. 49.

¹⁹ Hall and Woolley, *Excavations at Ur*, I, 211. (T.O. 403).

²⁰ M-D, pl. 153, f. 40, 41.

²¹ *Sumerian Palace*, p. 206; pl. 44, f. 2.

²² M-D, pl. 152, f. 16, top.

²³ M-D, pl. 148, A, f. 13.

presence of numerous svastikas that fill in the spaces between the crosses. Though these are not present in the design on the silver ring (fig. 5) and squares take their place, there is the possibility that the svastika motif originated in India, even though it appears also on the early painted pottery of Elam²⁴ as well as that of Sumer.²⁵ Both the appearance of the Greek cross motif and its arrangement on the objects cited from Sind and Sumer add an undoubted link between the two countries, and a very early one at that.

With reference to the svastika, attention should be called to a steatite seal from Kish, now in the Baghdad Museum, which bears this symbol. This seal, both in shape and the design upon it, exactly resembles the little square seals of steatite and glazed paste that are so frequently found at Mohenjo-daro.²⁶ I do not think that I err in regarding the Kish example, which was found by Watelin, as either of Indian workmanship or made locally for an Indian resident in Sumer.

Feeding cups with a spout projecting upwards from the base²⁷ are well known at Mohenjo-daro. It was, therefore, pleasing to find that the magnificent gold specimen found at Ur is not an isolated example, but that this type of cup was also made there in pottery—again, at a very early period.

We have already shown that the working of shell was common to early India and ancient Sumer, this material being used in both these countries chiefly for inlay. A form of ladle made in shell, which is frequently found at Mohenjo-daro,²⁸ is exactly duplicated in examples found at both Kish and Ur.

Again, the capping of finely cut, variegated hardstone beads with gold²⁹ was also practised in Sumer, for Woolley has found such beads in early graves at Ur. Indeed, the close resemblance of some of these capped beads to those of Mohenjo-daro leads one to suspect that they were actually of Indian workmanship. I base this suggestion on the fact that they are more common at Mohenjo-daro than in Sumer.

The curious perforated vessels shown³⁰ are very closely allied to perforated vessels found at Kish³¹, especially in the fact that besides the numerous holes in the sides there is also a large hole in the base, which suggests that by this means they were supported on a rod or

²⁴ J. de Morgan; *La Préhistoire Orientale*, t. II, p. 266, fig. 293.

²⁵ Herzfeld, *Die Ausgrabungen von Samarra*, v, 16, 17, etc.

²⁶ M-D, pl. 114, f. 507-15.

²⁷ M-D, pl. 83, f. 20.

²⁸ M-D, pl. 156, f. 26-29.

²⁹ M-D, pl. 149.

³⁰ M-D, pl. 84, f. 3-18.

³¹ *Sumerian Palace*, pl. 54, f. 36.

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something similar. The shapes are certainly different, but this fact is of little consequence in view of the general difference in the shapes of the pottery used by the Indus Valley peoples from the wares found in the early cemeteries at Ur and in the A graves at Kish. I have suggested, from evidence obtained by Sir Aurel Stein in southern Baluchistan, that these perforated vessels were used as heaters. But I am now inclined to believe that they served as strainers for curds. We know from the presence of numerous models of oxen in their cities that cattle-raising was practised by the Indus Valley people ; milk was, therefore, in all probability as much used by them as by the Sumerians throughout their history.

The carefully modelled panther heads made in pottery³² are obviously intended to be affixed to a backing of some kind, since they are both hollow behind. Their striking resemblance to similar masks found at Ur, though the latter are of silver, provides a further link between the cultures of Sumer and ancient Sind. The silver heads from Ur,³³ which are dated to c. 3500 B.C., were once affixed to the front of a royal chariot. We have no reason to suppose that the Mohenjo-daro heads were used for the same purpose ; indeed, the humbler material of which they are made suggests that they beautified something much less important, and we hope to discover later on what that was. I have already compared the other type of mask found at Mohenjo-daro, *i.e.*, a human head with the horns of a bull, to the similar metal heads from Ur, a parallel which certainly suggests that a deity of the same form, if not with the same attributes, was common to the two cultures.

The little pottery figures of doves with outstretched wings, that are so frequently found at Mohenjo-daro³⁴ are, as I have already explained, known in early Crete as well as at Musyan in Elam. It is, therefore, interesting to see that Woolley has found a similar figure at Ur beneath a deposit left by a flood. The only difference between the Indus Valley specimens and the one from Ur, beyond that of the kind of clay employed, is that the latter is painted. It has a hole in its base, doubtless that it might be supported on a stick ; and we have a similar hole in many of the examples at Mohenjo-daro, though it is lacking in the particular specimen illustrated. Another form of the same bird,

³² M-D, pl. 96, f. 5, 6.

³³ *Museum Journal*, Philadelphia, XIX, no. 1, p. 16.

³⁴ M-D, pl. 96, f. 1.

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with closed wings, and set on a little pedestal, is common both at Kish³⁵ and Mohenjo-daro.³⁶ In the latter city a small hole in the back near the tail sometimes turned the model into a whistle, but model birds of the same shape are found without this added device.

In ancient Sumer the dove seems to have been included in offerings to the various deities, and Eannatum states that he offered two to the goddess Ninkharsag.³⁷ At a yet earlier date figures of the bird occur in the limestone inlay which once decorated the temple of al'Ubaid, that was also dedicated to the goddess Ninkharsag³⁸; and that the bird was sacred in Elam seems certain from the lapis-lazuli and gold figure found at Susa by the French expedition.³⁹

The close association of the dove with the cult of the Mother-goddess in Crete, Sumer, and elsewhere in the Near and Middle East, in Sardinia, and even further west, together with the fact that so many models of this bird are found at Mohenjo-daro, leads us further to believe that the goddess whose semi-nude, bejewelled pottery images are such a feature of Mohenjo-daro and Harappa was also a Mother-goddess. The great respect in which the dove is held even at the present day in Northern India by Muhammedans and Hindus alike is quite possibly a survival of this cult.⁴⁰ Perhaps there was a closer connexion than we at present know of between the Sumerian goddess Ninkharsag and the goddess of the Indus Valley people.

The fine steatite head⁴¹ has peculiar, half-closed eyes, which according to Mr Ramprasad Chanda proves the practice of 'Yoga' among the people of the Indus Valley.⁴² But the curious figurines found by Woolley in graves of the al'Ubaid II period at Ur are also represented with this very narrow eye.⁴³ Woolley describes these heads as reptilian, but, personally, I believe that they are intended to represent human heads, a view which is somewhat corroborated by a human figure holding a bow and arrow which Dr Herzfeld found on a painted sherd at Susa, for the shapes of the head and head-dress of this

³⁵ *Sumerian Palace*, pl. 47, f. 10.

³⁶ M-D, pl. 153, f. 17-18.

³⁷ King, *Sumer and Akkad*, pp. 128-9.

³⁸ Hall and Woolley, *Ur Excavations*, I, pl. 33.

³⁹ *Mém. Dél. en Perse*, t. 7, pl. 25, f. 1, 2.

⁴⁰ Crooke, *Folklore of Northern India*, II, 246.

⁴¹ M-D, pl. 98, f. 1-4.

⁴² *Mem. Arch. Surv. Ind.* no. 41.

⁴³ *Antiquaries Journal*, vol. x, pl. 48, f. a-d. See also *Ur Excavations* (al'Ubaid), pl. 48. (T.O. 405).

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latter figure are identical with those of the Ur figurines.⁴⁴ Possibly these Sumerian figures were intended to represent the autochthonous inhabitants of the country.

We have yet a fourth example of this very unusual eye in a pottery head that I found some time ago at Kish, and that I believe is now in the Ashmolean Museum at Oxford (figs. 8, 9). Unfortunately, this curious head cannot be accurately dated, but that it is archaic admits of no doubt. The fan-like head-dress or arrangement of the hair is also very unusual and has something in common with the head-dress worn by some of the female figurines of Mohenjo-daro.

I cannot but think that the unusual narrowing of the eye in all these very early examples suggests its association with some definite idea held in common, but whether religious or racial it is impossible to say. The human figures of about 3100 B.C. portrayed on jar handles at Kish, though all female, are, it is true, without exception represented with round, open eyes, such as are generally associated with Sumerian sculpture.⁴⁵ The absence of the mouth in the above mentioned pottery head from Kish is not surprising in view of the fact that this feature is also frequently absent in the figures on the jar-handles of the A cemetery. The figures of the inlaid plaque from the palace at Kish have unusually small mouths, and so has the large painted terra-cotta head since found there by Watelin.⁴⁶ Indeed, the mouth seems to have been treated as a somewhat unimportant feature in some of the early representations of the human head in Sumer. I would like to point out in addition that, so far as it is possible to judge from a photograph, the ears of this last mentioned head are exactly the same roughly modelled, saucer-like features as the ears of the statue heads found at Mohenjo-daro.

Though not strictly germane to this article, it is necessary to mention that the handled vessels from Kish had a wider range than was at first realized. One such vessel has been found at Ur, and a handle at Susa, the latter dated to about 3000 B.C. Apparently Contenau, who mentions it, has not realized that this is a handle of a jar of the Kish type.⁴⁷ These curious vessels may have been

⁴⁴ Mém. Dél. en Perse, t. XIII, p. 37, f. 129.

⁴⁵ *Sumerian Palace*, pl. 45.

⁴⁶ 'Rapport sur les Fouilles de Kish', *Journal Asiatique*, 1929, f. 4.

⁴⁷ Contenau, *Manuel*, p. 178, f. 107. A complete specimen of one of these 'granny' jars has lately been found at Susa. ANTIQUITY, Sept. 1931, pl. IX.

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taken to both Ur and Susa as they seem not to have been made in those places.

The stone jar-borer⁴⁸ has already been compared with one from Egypt, but of much later date. Woolley has also found one at a site named Meraijib, 11 miles south of Ur, which is a very early example indeed,⁴⁹ and of very much the same in shape, as I have seen for myself. Though not of great importance as evidence in the dating of Mohenjo-daro, for the reason that the identical shape is known at a later period in Egypt, this borer proves that the same class of implement was used in the two countries. In all probability these stone grinders were heavily weighted and rotated by means of a crank; the same method was practised by the ancient Egyptians, who on their tomb walls have given us many illustrations of how they were used.⁵⁰ Woolley suggests that these borers were worked by the aid of a bow and cord. I think that the friction that would be created by the rotation of such a heavy object would be too much for the bow and cord method.

The elaborate figure-of-eight design seen on a copper tablet⁵¹ cannot be exactly duplicated in Sumer. The simple outline was, however, frequently used at Mohenjo-daro to ornament beads, and it also appears, as has already been stated in this note, on a painted carnelian bead from Kish. Of great importance is the fact that identically the same design as that incised on the copper tablet appears on two scarabs approximately dated by Petrie to the Thirteenth to Seventeenth Dynasties of Egypt, where one would hardly have expected it.⁵² It is also painted on a stone flake, dated to the Eighteenth Dynasty found at Tell el Amarna in 1922 by the Egypt Exploration Society and is now in the Ashmolean Museum, Oxford.

I have no doubt that this same cord pattern will eventually come to light in both Elam and Sumer. That it took so long to travel to Egypt from its occurrence in India in the earlier part of the third millennium B.C. until the second millennium B.C., is a point of interest; but in time this period may be considerably reduced, for something very like this design, though more complex, occurs on a predynastic vase from Egypt, as I have already noted. This particular predynastic

⁴⁸ M-D, pl. 130, f. 35.

⁴⁹ *Antiquaries Journal*, x, 339. It would seem to be of the Jemdet Nasr period.

⁵⁰ *Ancient Egypt*, 1922, 18, f. 40. See also Clarke and Engelbach, *Ancient Egyptian Masonry*, 204.

⁵¹ M-D, pl. 118, f. 5.

⁵² Petrie, *Buttons and Design Scarabs*, pl. 8, f. 129-30.

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vase is closely dated by both shape and style of painting to the second, or middle predynastic period, as Hornblower has already pointed out,⁵³ and Petrie has more than once suggested that the home of the people of this sub-period was 'somewhere bordering on the Red Sea', or 'possibly southern Sinai or the northern Hedjaz'.⁵⁴ In short, he regards the people of the second predynastic period as of Asiatic origin. Indeed, there is increasing evidence that certain ideas from Middle Asia did actually filter slowly to Egypt, probably in most cases via Syria; but whether these ideas were Indian in origin or Mesopotamian, with which we must couple Elam, we do not know.

The clay animal on wheels, which Woolley found at a very early level at Ur and described as a zoo-morphic vase,⁵⁵ has its almost exact counterpart in a broken toy that I found in the debris covering the Sumerian palace at Kish⁵⁶ (fig. 6). I have described the Kish figure as a ram, to which opinion I still adhere, and the Ur figure seems to me to represent the same animal. The Kish specimen is certainly not a vase and was only made hollow for the sake of lightness, which is almost a necessity in a toy made for a small child. Woolley dates his example to the period of the royal cemetery, or perhaps even earlier (c. 3500-3200 B.C.); but the Kish specimen must have been considerably later, and though it cannot be exactly dated, I should hesitate to put it earlier than about 3100 B.C.

These toy animals from Sumer are closely comparable with the toy rams, also on wheels, that we occasionally find at Mohenjo-daro.⁵⁷ The fact that two wheels were preferred to four in ancient Sind matters little; we have the same animal represented and also with a hollow body for the sake of lightness. Imagination, however, was given wider range in the Sind examples in that a bird's tail is introduced which brings them into the category of 'composite' animals, of which the people of Mohenjo-daro, and be it noted, of Sumer also, were so fond.

The decorative design of four-petalled rosettes that is such a common feature on the painted pottery of Mohenjo-daro⁵⁸ is also met with on painted pottery from Tell Zeidan on the eastern bank of the lower Balikh river in North Syria. This ware is dated by Albright to 3500 B.C.,⁵⁹ which, it should be noted, agrees in date with some of my

⁵³ *Ancient Egypt*, 1928, 68-69.

⁵⁵ *Antiquaries Journal*, x, pl. 41 a.

⁵⁷ M-D, pl. 153, f. 24.

⁵⁹ *Man*, March 1926, pl. c, f. 1.

⁵⁴ *Prehistoric Egypt*, 48.

⁵⁶ *Sumerian Palace*, pl. 46, f. 3.

⁵⁸ M-D, pl. 91, f. 9, 10.

other Sumerian connexions. As we know, pottery designs were adopted by neighbouring peoples, but it is interesting to find a motif that was in such common use in the Indus Valley occurring as far away as northern Syria, and not in the countries between. Such a simple motif may, however, have been designed independently.

In connexion with the two pieces of glazed pottery,⁶⁰ the method of whose ornamentation has already been described, I should like to point out that the same device of partially removing a dark-coloured slip with the aid of a comb or other such instrument is also known at Ur. This 'reserved slip ware', as it is termed, occurs in Woolley's stratum E, a very early level (before 3500 B.C.),⁶¹ and does not differ in general technique from the similar ware at Mohenjo-daro, though the latter was glazed. We have, however, found one example where a light slip has been removed in parts from the surface of unglazed pottery instead of, as at Kish, a dark slip from a lighter ware. It is of interest to note that this 'reserved slip' ware, whether glazed or not, is only found in the lower levels of Mohenjo-daro, which appear to correspond with those of Ur.

I have already remarked that as far as can be seen, no strict comparison can be made between the shapes of the pottery from Mohenjo-daro and the early wares of Sumer and Elam. There is, however, one exception. We find, principally in the upper levels of Mohenjo-daro, though it is also known in the intermediate phases, a type of vessel fashioned sometimes in copper and bronze, but more generally made in clay.⁶² An alabaster vessel in the Baghdad Museum, which is labelled as having come from Khaffaga near the Diala river, corresponds very closely in shape with this Indian type. Though I do not know its exact date, it appears to me to be archaic.⁶³

These additional facts, together with the connexions already pointed out in the book, prove beyond question that the upper occupations at Mohenjo-daro are contemporary with the earlier ones of Ur and Kish. I connect these two latter sites because I am convinced that the graves of Woolley's third series, the 'gold graves', as they are often termed, as well as his second series, belong to very much the same period as

⁶⁰ M-D, pl. 159, f. 1, 2.

⁶¹ *Antiquaries Journal*, x, 331 and 339.

⁶² M-D, pl. 86, f. 1, 22 ; pl. 140, f. 18.

⁶³ I am given to understand that it was bought by the museum.

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the A graves at Kish, though he appears to regard the latter as contemporaneous only with his second series (dated 3100 B.C.). There is, I consider, too great a similarity between the objects found in the A cemetery and the third series of graves at Ur for any great space of time to have intervened between them. It is true that many articles found in these latter graves, which Woolley dates between 3500 B.C. and 3200 B.C., have not been found at Kish, but their absence is easily explained by the fact that the people buried in the 'gold graves' at Ur were immeasurably richer than those at Kish, where the graves were obviously those of comparatively poor people.

I have no very great objection to the later limit of Woolley's dating of this third series, namely 3200 B.C. Indeed, at the time of excavating it, I provisionally dated the A cemetery to about 3100 B.C. But in my opinion not more than two hundred years at the outside should be allowed to cover what differences there are between the grave-furnishings of the two cemeteries.

We have assigned the somewhat conservative date, 2750 B.C., to the upper levels of Mohenjo-daro, but we may have to increase it in view of the many connexions between that place and the early periods of Kish and Ur. In the present state of our knowledge, the connexions that have now been established between the two countries do not allow of any other course. On the other hand, when the chronology of the Sumerian graves is finally settled, their dates may be brought nearer to our estimate of the date of the late levels of the Indus civilization. Personally, I think there will be a compromise between 3100 B.C. and 2750 B.C., with a bias towards the later date.

Since the above lines were written, Watelin has kindly sent me a photograph of a seal of the Indus Valley type that he has lately found at Kish. There is no doubt whatever that this particular seal was made and engraved in India. The perplexing fact arises, however, that it was found at a level which Watelin states cannot be earlier than 2400 B.C. The first seal of this type to be found at Kish came from a level dated approximately to 2100 B.C., but as it was found in the filling of foundations of this date, there was reason to think that the seal itself was of earlier date and had lain for some time in the earth that was used for the filling. That it was already old when it found its last resting place at Kish is proved by its broken and badly weathered condition.⁶⁴

⁶⁴ *J.R.A.S.*, 1925, p. 697.

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As the characters and animals on these Indian seals must have been more or less strange to most of the Sumerians, it is not unlikely that whenever they were picked up at a later date they were kept as curios.⁶⁵

For the reasons already given, I cannot see that it is possible to date the civilization of Mohenjo-daro, as now known to us, as late as 2400 B.C. Woolley also states that the Indus Valley civilization is, 'as proved by the seals found in the two countries, contemporary with that of the Ur graves and of Mes-anni-padda'.⁶⁶ So late a dating as 2400 B.C. would imply that if the date Woolley assigns to the royal graves at Ur, namely 3500 to 3200 B.C., be correct, the Indus valley people used certain designs and objects almost a millennium later than these appeared in Sumer, with practically no change in their style and execution, which on the face of it appears highly improbable. The script alone would have been profoundly modified in so long a period of time.

⁶⁵ For a parallel, note the antiquarian tastes of Nabonidus and his daughter: Woolley, *Antiquaries Journal*, Oct. 1925, p. 384.

⁶⁶ *The Sumerians*, p. 46.

Ladle Hill—an unfinished hillfort

by STUART PIGGOTT

EVERY archaeologist has at one time or another no doubt idly toyed with the attractive, if utterly impractical, idea of travelling backwards in time, and has seen himself, arrived within his 'period', solving many problems by merely looking around him. Students of earthworks would give much to have been present at the building of a hillfort, for even if conversation with the builders were impossible, a great deal might be learned by watching the work in progress. We today, dealing with hillforts completed some two thousand years ago, find it difficult even after excavation to visualize the exact methods of construction of these defences.

There is however one example of a hillfort which is in that same unfinished state as our time-traveller might find were he on the Wessex Downs in the first few centuries B.C. True that he (lucky man!) would find the ditches newly dug and the rampart fresh piled chalk, while we today see them grass-grown and denuded; but nevertheless these earthworks on Ladle Hill do help us to understand how they made those great green ramparts to protect their villages.

Ladle Hill,¹ on which is the unfinished hillfort described here, is a part of the Hampshire Highlands—the chalk hills lying between Salisbury Plain and the Weald—which constitute a great tilted uneven plateau intersected by valleys, with a steep escarpment to the north.² The road from Winchester to Newbury and Oxford runs north through the ridge along a valley between two hills—Beacon Hill, above Highclere, on the west and Ladle Hill on the east. On Beacon Hill is a fine and typical hillfort: on Ladle Hill the earthworks which puzzled archaeologists until aerial observation and photography disentangled them and revealed their true nature.

As well as these main earthworks, there are other evidences of early occupation of the hill, and some of these have a bearing

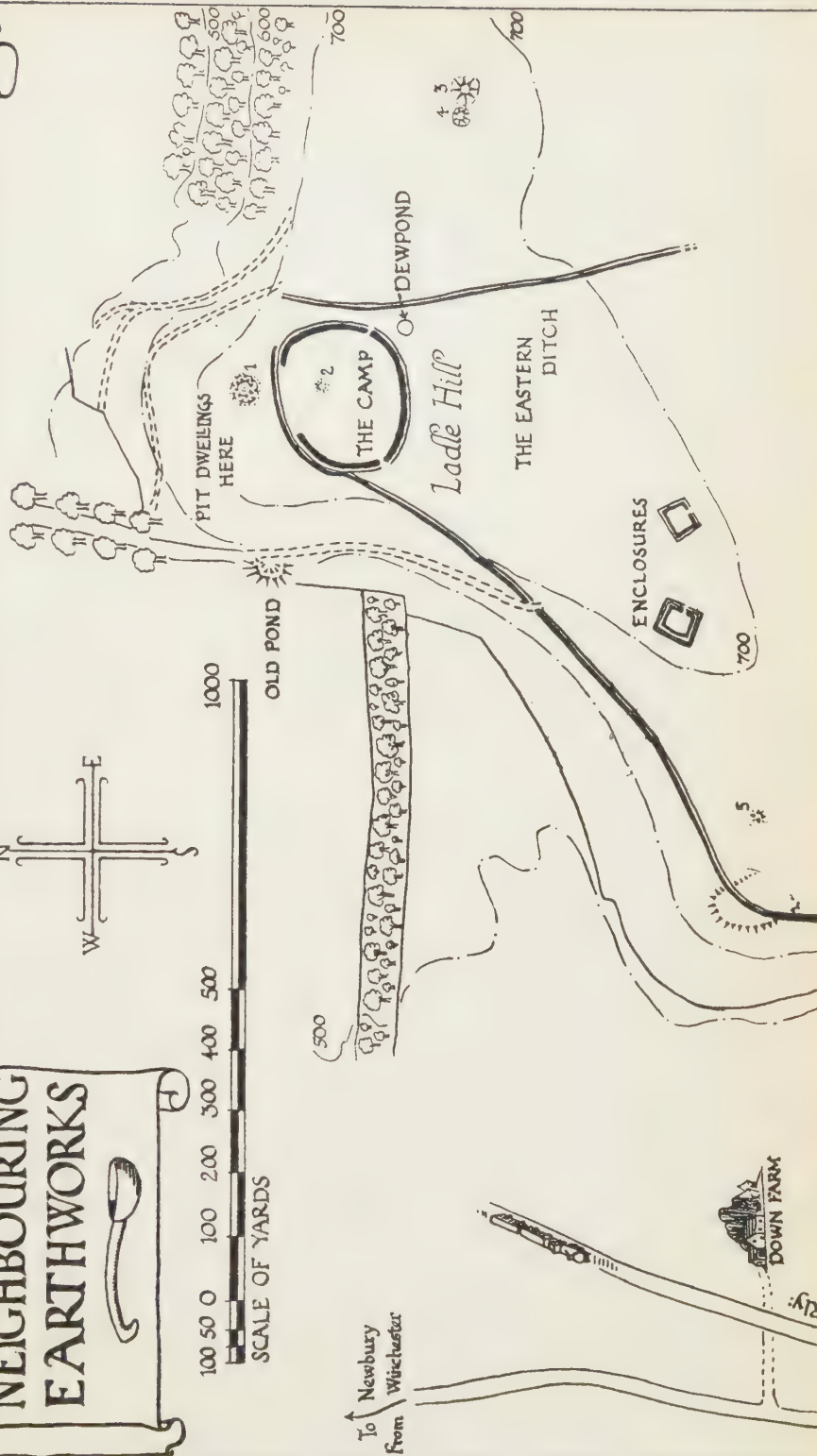
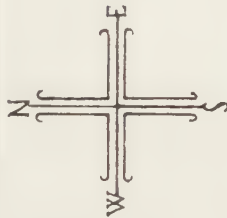
¹ Map references are—O.S. 1-inch, 113 H 4; 6-inch IX SW.

² This district is the subject of a geographical study by Mr O. G. S. Crawford—*The Andover District*, 1922.

LADLE HILL AND ITS NEIGHBOURING EARTHWORKS



The Camp with the Ditch meeting it: from the South.



Hare Warren Down,

NOTES: Banks are shown thus: —, ditches thus: —, lynchets thus: vvvvv, sunk tracks thus: ----. Barrows etc. are shown by hachures in the usual manner.

The lynchets are neither a complete nor very accurate survey, but indicate the main areas, and their relation to the Boundary Ditch.

The Camp on Ladle Hill has not been represented in exact detail, but diagrammatically

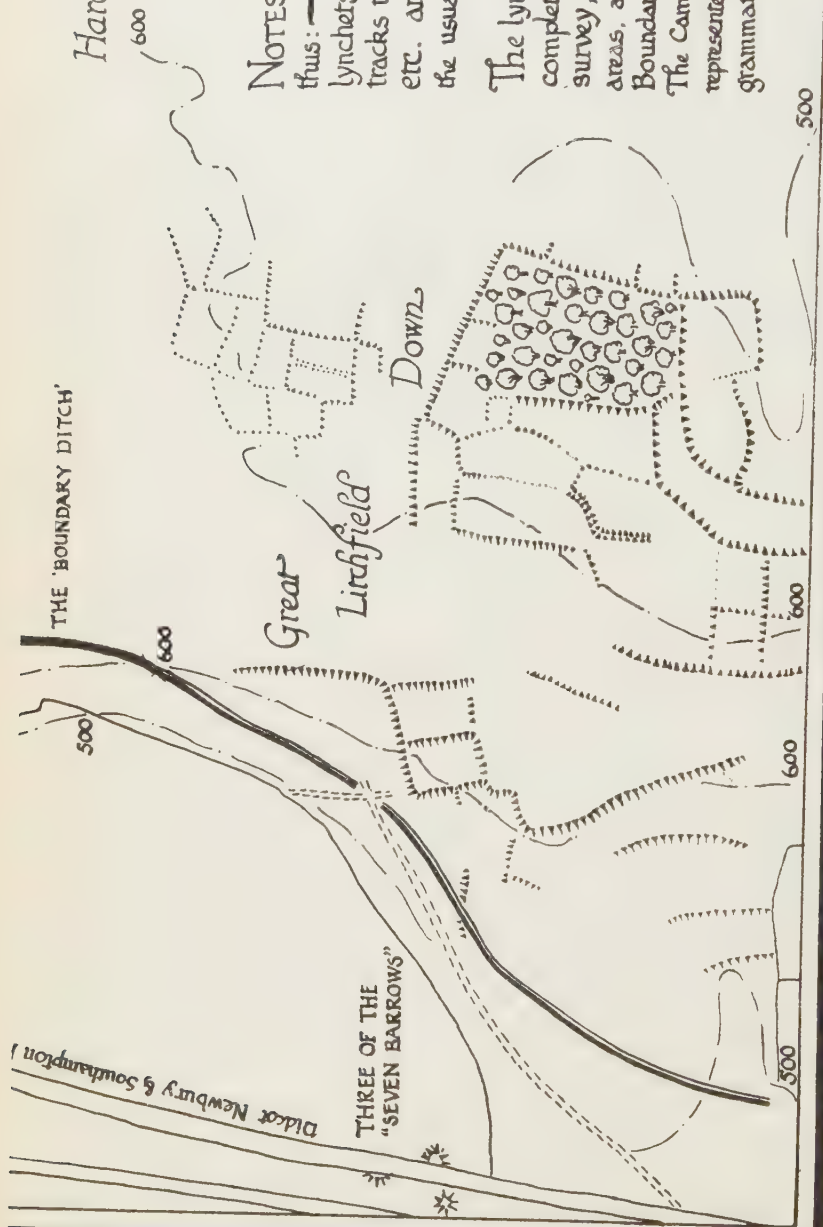


FIG. 1. GENERAL PLAN OF THE SITE

LADLE HILL

on the building of the hillfort. The area included in the general plan (fig. 1) covers the big spur of downland comprising Ladle Hill proper, Great Litchfield Down and Hare Warren Down. Within this area, in addition to the Ladle Hill Camp, are five round barrows of various types, a large group of lynchets, two roughly square earthworks, two earthworks of 'boundary ditch' type, and several sunk tracks ascending the slopes. Below the Camp on the west is an ancient catchment pond, and on the nose of the hill a number of hut sites.

THE CAMP

When first seen from the ground the earthworks on the head of Ladle Hill are certainly most puzzling. From the foot of the hill to the north the hill appears to be crowned with a group of round barrows, and when the summit is reached an oval area some 200 by 250 yards is seen to be surrounded by a bank and ditch, but one of most unusual type. Instead of the usual even furrow of the ditch and the smooth swell of the rampart within, there is here a string of troughs and hollows, their irregularities echoed by the hummocks and lumps that make up the rampart, and which from a distance suggest barrows. Inside, the area of the Camp is even worse confusion, with low irregular mounds sprawling everywhere a few yards behind the rampart. In places there is no true rampart at all, only these shapeless heaps 40 feet away from the irregular ditch.

Observation from the ground alone was bound to lead to faulty conclusions as to the true meaning of this tangle of banks and irregular chain of ditches. Dr Williams-Freeman³ suggested that the Camp had been partly destroyed, and the rampart thrown into the ditch in places, forming the causeways which appear opposite the gaps in the bank. The present writer, when describing the earthworks on Butser Hill, Hants,⁴ advanced a theory of two periods of construction for a fortification there, and cited Ladle Hill as a parallel example, suggesting that it was a Neolithic causewayed camp refortified at a later date by having the silting dug from the original ditches and heaped on the denuded rampart. Neither theory was more than tentative, and neither accounted for all the phenomena of the site.

The excellent air-photographs taken in 1930 however showed the site, metaphorically as well as literally, from a new point of view. A

³ *Field Archaeology of Hants*, pp. 78-9, 380.

⁴ *ANTIQUITY*, IV, 187-200.

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study of these photographs and of the remains themselves on the ground enabled the writer and Mr O. G. S. Crawford to work out a theory which takes into account all features of the earthworks (which previous theories did not), and provides an explanation which not only fits the facts but which was proved more than once in the course of the work by hitherto unnoticed pieces of evidence that came to light.

It was seen that on Ladle Hill we had an example, probably unique of its kind, of a hillfort abandoned half-way through its construction, and so showing features which in the complete work would be concealed. The skeleton of the body, the rough sketch beneath the paint, is visible, and gives us some hints as to the methods employed by the builders of the Early Iron Age camps. It should be mentioned here that we have no direct evidence of date for the work. As will be described below, it does fit into a chronological sequence with other earthworks on the hill, and general characteristics point to the Early Iron Age. A closer dating cannot be arrived at with certainty without excavation.

THE METHODS OF CONSTRUCTION

Plate III and figs. 2, 3

The examination of the earthworks gave evidence on the following points :—

1. The choice of the site and utilization of an existing ' boundary ditch ' as part of the defences.
2. The method by which the area of the Camp was delimited by a ' setting-out ditch ' before the main ditch was dug.
3. The methods employed in digging the main ditch.
4. The disposal of the excavated material.
5. The actual building of the rampart.

While some of the results are what might have been expected, others, notably the selection of material in the make-up of the rampart, are novel and of great interest.

1. THE CHOICE OF THE SITE AND THE BOUNDARY DITCH. The top of Ladle Hill, within the 700-foot contour, is admirably suited for defence, and its selection as a site for a hillfort is to be expected rather than wondered at. But apart from the natural suitability of the position, the makers of the fort appear to have been further influenced in their

LADLE HILL CAMP

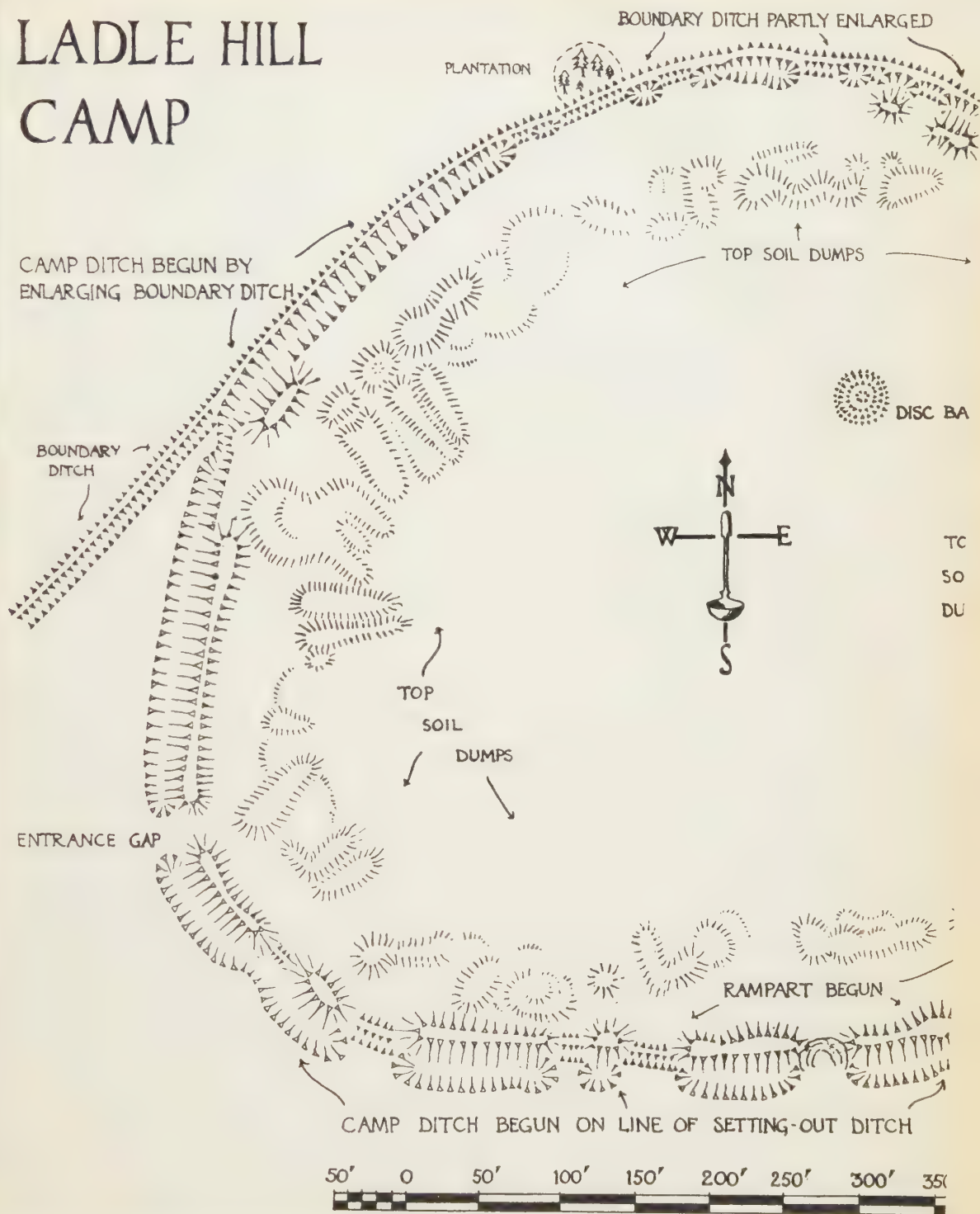
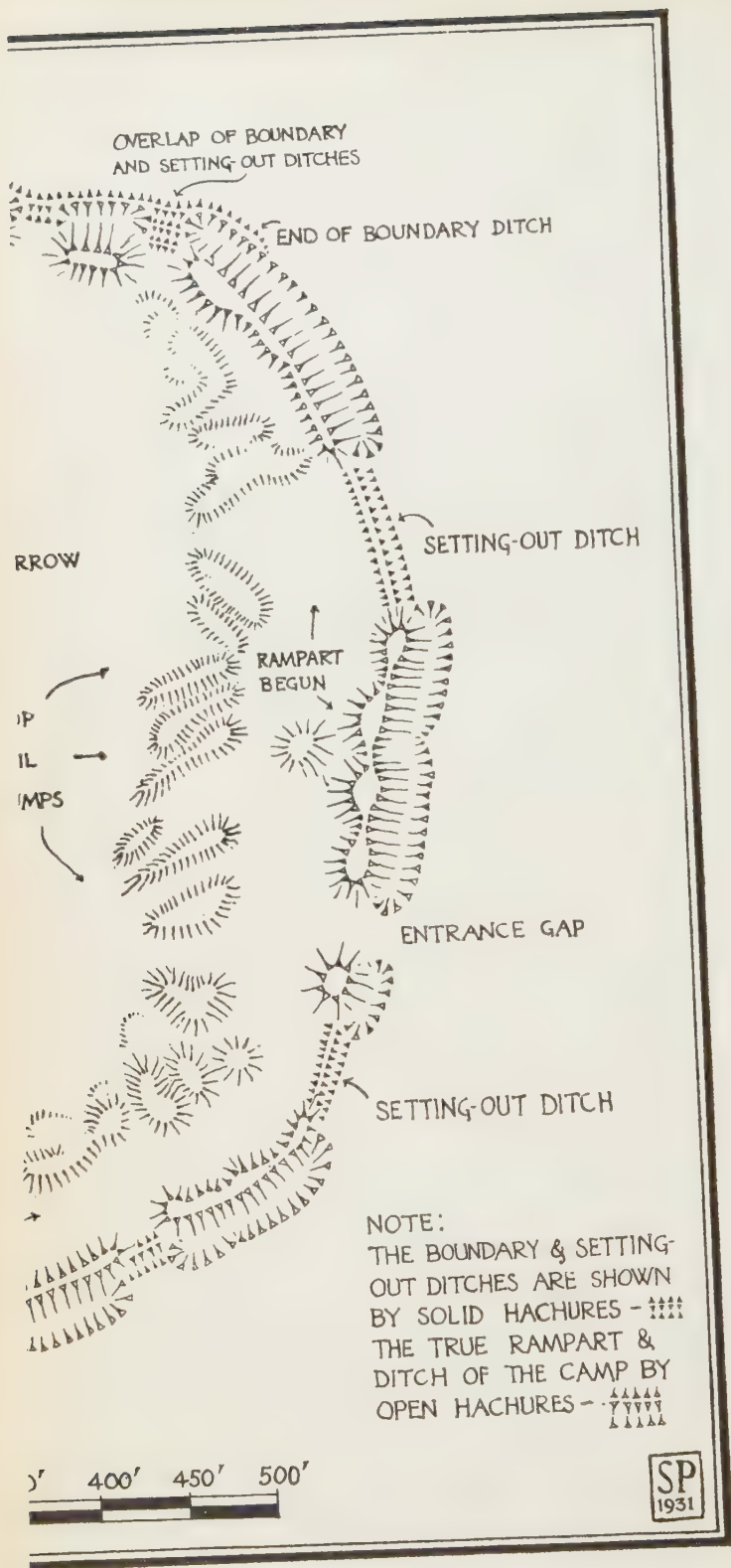


FIG. 2. DETAIL PLAN OF CAMP



LADLE HILL

choice by a pre-existing earthwork. The general plan (fig. 1) shows the course of a bank and ditch, marked as The Boundary Ditch, along the western edge of Great Litchfield Down and on to Ladle Hill itself. This is a bank and ditch of slight profile, and now much silted up for most of its course, the ditch averaging some 2 feet below the crest of the bank, and with an overall measurement of 20 feet. It seems to be a linear earthwork of the class of 'Boundary Ditches' common in Wessex, which sometimes (as here) seem to begin, wander and end for no obvious reason. Its south end is at the bottom of a small valley running east into the down: there seems to be no reason for its stopping there, but no trace can be found further south. From here it runs north, following the western edge of the down, running below the crest but above the steep fall into the valley, and in its course cuts through lynchets at three points, thus showing it to be later in date. At one point it is itself cut through by sunk ways that run diagonally up the hill slope. These intersections are well shown in the air photograph, plate II.

Where the Boundary Ditch reaches the top of Ladle Hill it appears to run into the ditch of the hillfort. A study of the junction and of the northern side of the fort discloses the interesting fact that the Boundary Ditch runs on, curving round the nose of the hill to die out on the northeast, and that the Camp was deliberately placed in this curve—the earlier bank and ditch forming in fact its original northern boundary.

A well-known instance of a hillfort later in date than a 'boundary ditch' is the camp on Quarley Hill, Hants, where at two points the ramparts cut through a wandering bank and ditch of similar type to the Ladle Hill example.⁵

2. THE SETTING-OUT DITCH. The northern part of the area to be occupied by the Camp was, as we have seen, marked by the course of a pre-existing earthwork consisting of a small ditch with a bank exterior to the proposed fort. It is natural to expect that the remaining circuit of the area should be marked out in some way to guide the diggers of the main ditch, and it so happens that the designers chose to mark out this line by means both easy for them and conveniently permanent for us. The method employed was to dig a small ditch of profile similar to the Boundary Ditch with a correspondingly slight interior

⁵ *Air Survey and Archaeology*, 2nd edition, pl. x, pp. 4 and 32.

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bank ; starting from the end of the Boundary Ditch on the east and curving round to join it again further down on the west. This slight earthwork has been called the Setting-out Ditch,* and can be traced across every causeway between the fully excavated parts of the main camp ditch except at two points, one on the east and one on the west, where gaps have been left, presumably to mark the positions of the entrances of the fort.

At one point on the northeast the Setting-out Ditch and the Boundary Ditch overlap, and both are visible across a causeway.

The slight inner bank of the Setting-out Ditch is almost everywhere covered by the beginnings of the true rampart of the Camp, but it shows particularly well across one wide causeway, 80 feet across, on the northeast, where no ditch or rampart has been made. The material of the bank of the Setting-out Ditch would consist of little more than turves and top soil, with a little small chalk rubble, and it is possible that the layer of similar material so often found on the old ground level when sections are cut through the ramparts of hillforts on the chalk may not represent, as has been usually assumed, the first material dug from the great ditch, but the bank of a setting-out ditch which was completed before the digging of the actual camp ditch.

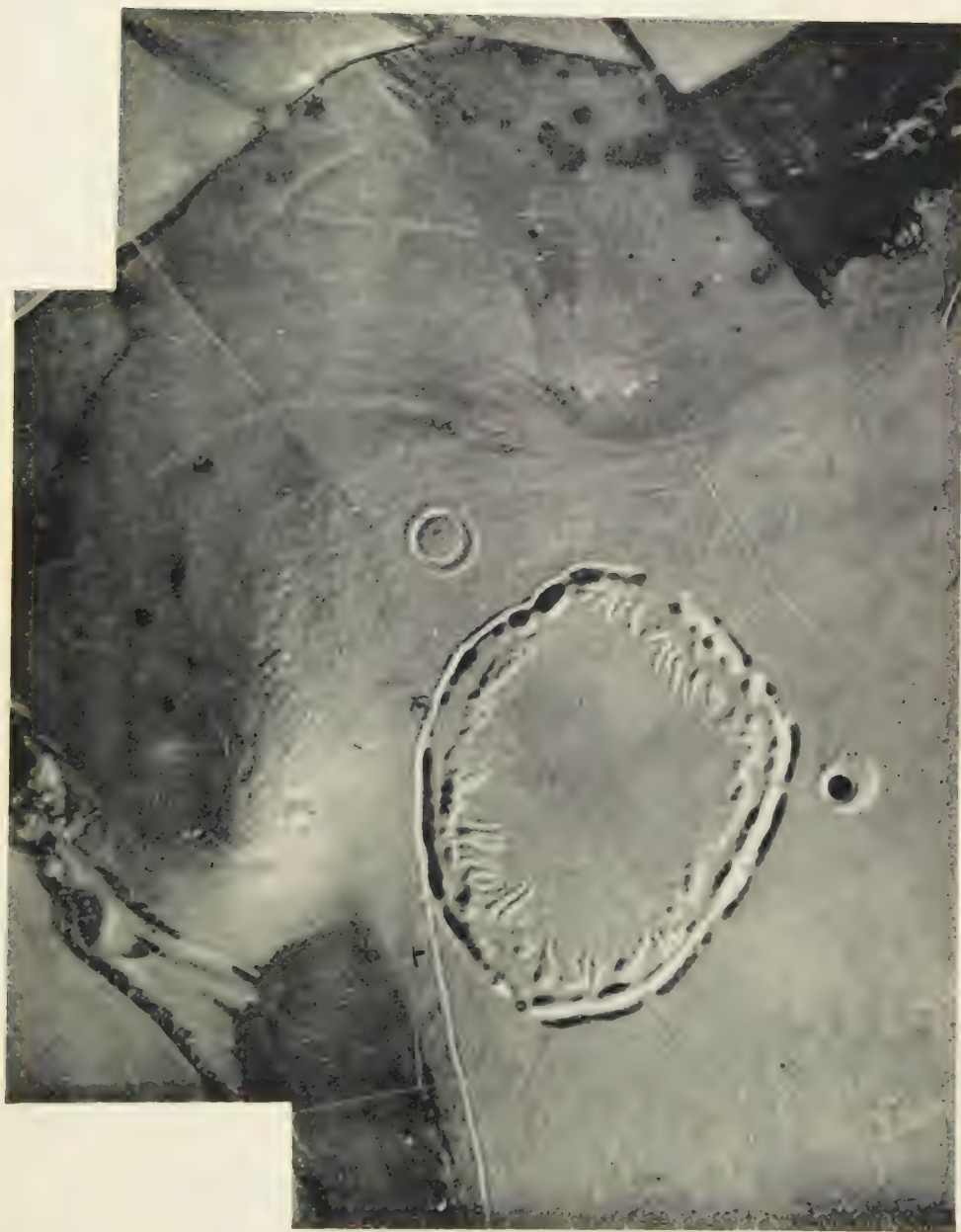
3. THE DIGGING OF THE MAIN DITCH. With the site marked out for the whole of the circuit of the proposed defences, work could now begin in earnest by digging the great ditch, which was, in addition to being a defensive feature itself, the quarry for the material of the even more important rampart behind it. The digging was clearly done in gangs of varying sizes, each gang digging out a separate section and leaving causeways between itself and adjoining gangs to allow for the excavated material to be carried into the area of the Camp and to provide general easy access. Across these causeways, the Boundary Ditch or the Setting-out Ditch can be traced, but where the digging of the great ditch has begun they have of course been dug away.

The excavated sections vary in length from 25 feet to 170 feet, and are all about 20 feet wide ; but they are irregular and often have 'partial causeways' as well as the true gaps. A large sector of the Camp on the west, north of the west entrance, has a run of continuous ditch with only a single partial causeway for a distance of some 530 feet.

This gang work, and the consequent interruptions of both the

* This explanation of the ditch was first suggested by Dr Cecil Curwen, F.S.A.

PLATE I



LADLE HILL CAMP AND ITS ENVIRONS
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facing p. 478

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ditch and the rampart quarried therefrom explains the irregularities which form such a striking and puzzling feature of the Camp at first sight.

4 and 5. THE DISPOSAL OF THE EXCAVATED MATERIAL AND THE BUILDING OF THE RAMPART. It was found that the making of the rampart of the Camp was not just a simple matter of throwing up the

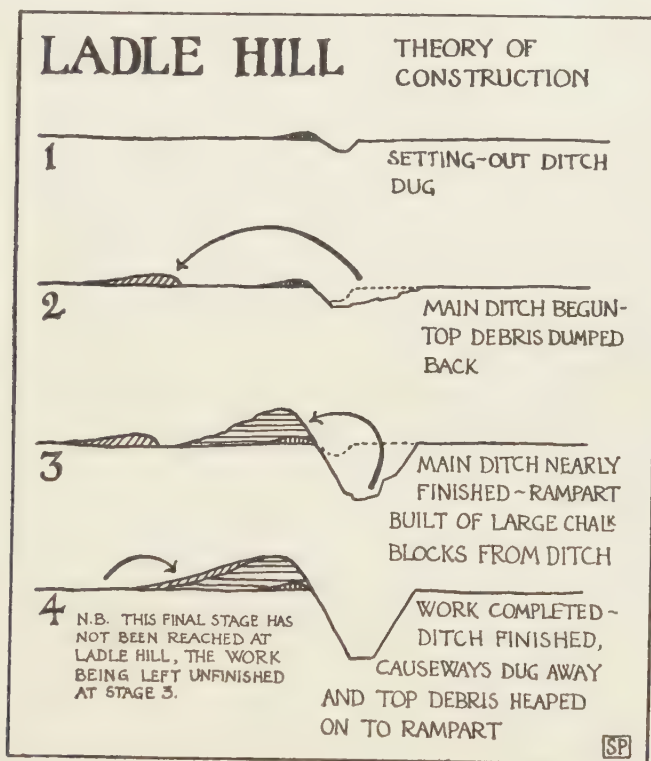


FIG. 3

excavated material on the inside of the ditch. A more elaborate method was pursued, the clue to which is in some measure given on the north sector of the Camp, where the old Boundary Ditch was adapted to suit the purpose of the builders of the Camp.

By itself, this ditch was useless for defence: it was too small, it had its bank on the wrong (downhill) side, and it is probable that when the construction of the fort was begun the ditch was silted up to some

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extent. It was necessary therefore to clear out the silting and re-dig and enlarge the ditch. The remainder of the circuit of the proposed ramparts was marked by a similarly slight and ineffective Setting-out Ditch. Fig. 3 shows the sequence of construction on this part—it would be exactly similar on the course of the Boundary Ditch except that the original bank of this latter was left outside the new ditch as a counterscarp bank.

Now one of the most interesting features in the constructional history of the fort comes to light. It seems that the builders were unwilling to make the base of the rampart with the turf, mould and shaly surface-chalk that would constitute the first material moved in making the ditch. They wanted, in fact, not a rampart consisting of loosely thrown rubble from the ditch, but a firm mass, the lower and outer courses at least being deliberately and carefully *built* with the large chalk blocks extracted as the digging got deeper. Careful construction of this kind is to be expected: even if part of the rampart did ultimately find its way back into the ditch a retaining wall and firmly consolidated base would delay this and make a more formidable barrier. The use of stones from the ditch as a retaining wall for the bank has recently been suggested in connexion with the Southern Cross Bank at Hembury Fort, Devon.⁶

With this end in view, the builders of Ladle Hill Camp seem to have dumped back, at a distance of some 30–40 feet from the inner lip of the ditch, all the small chalk, earth and so forth that formed the first debris from the excavations, thus leaving a berm on which to build the rampart. This 'small' debris was tipped in a series of low irregular heaps (The Top Soil Dumps), with the apparent intention of piling them on to the solid based rampart to level up inequalities when the ditch was completed, as in stage 4, fig. 3. This stage was never reached at Ladle Hill, stage 3 representing the state of the Camp when work was abandoned.

Many of the dumps, as can be seen from the plan and air-photograph, are of 'tadpole' shape, with the 'tails' pointing away from the ditch; suggesting successive loads tipped from the inside of the Camp and showing that, while some sort of a limit was fixed on their interval from the ditch, they were allowed to straggle inwards without check.

As will be seen from the plan, these inner Top Soil Dumps occur

⁶ *Report on Excavations at Hembury Fort, Devon, 1930*, by Miss D. M. Liddell, p. 11.

PLATE II



FIGURE 1111 INTERSECTIONS OF BOUNDARY DITCH WITH LYNCHES AND SUNK TRACKS
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PLATE V



LADLE HILL CAMP: SECTION SHOWING MAKE-UP OF RAMPART ON SOUTH
Ph. Stuart Piggott

LADLE HILL

all round the Camp, and in most places it is impossible to tell whether they are anterior or subsequent to the piling up of the main rampart. But the north sector of the Camp, where it is founded on the Boundary Ditch, gives the clue to the relative sequence. Here, for a distance of some 55 feet there is no rampart; only the Top Soil Dumps, with a wide berm between them and the ditch. The excavations made to clear out and enlarge the Boundary Ditch opposite them are smaller and shallower than elsewhere in the Camp. The evidence clearly shows that the inner Top Soil Dumps were made before the main body of the rampart.

On the ground it looks as if the process of heaping the loose material back on to the rampart might have been just started near the southwest end of the Camp, as the ends of the dumps nearest the rampart look slightly 'nibbled', but it is a point one would not like to press.

The contrast is clear between the shallow scrapings in the old boundary ditch where no rampart has been started—the deepenings being as shallow as two or three feet (plate iv)—and the deep ditch and massive rampart on the southern and eastern sides, where the work is more advanced. A section measured across the ditch and rampart north of the east entrance shows the ditch to be five feet below the ground outside and twelve feet below the rampart crest. On the south side of the Camp confirmatory evidence of the theory of construction described above is provided by a digging which cuts into the end of one of the segments of true rampart. The lower part is thus exposed in section and can clearly be seen to consist of large chalk blocks quarried from the lower levels of the ditch. (Plate v).

SUMMARY. This then is the sequence of construction suggested by the earthworks of Ladle Hill Camp. The site chosen by reason of natural suitability, and the choice further controlled to some extent by the older Boundary Ditch; the circuit of the intended ditch and rampart marked partly by this, partly by a Setting-out Ditch, with gaps left for entrances at east and west; the great ditch begun by digging it out in segments by gangs of workmen; the top soil dumped back for later use; and finally the beginning of the building of the rampart with the large chalk blocks quarried from the ditch. At this point the work was abandoned for reasons unknown to us and the half-finished fort left to puzzle posterity.

It may be as well to mention two features on which no evidence is forthcoming at Ladle Hill. One is the use of timber-work, in the

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form of palisading or revetting. Nothing has been found to indicate either the presence or absence of this, but indeed would hardly be expected without excavation. The second is the nature of the entrances. Here the work must have been abandoned at an early stage, as the two gaps in the Setting-out Ditch and the true rampart are quite featureless and show no signs of incurving or of guard-houses or the like.

THE DATE OF THE CAMP. As has been mentioned above, there is no direct evidence of the date of the Camp. Some idea may however be gleaned from its relation to the other earthworks on the hill. The Camp is later than the Boundary Ditch, which is itself later than the lynchets on Great Litchfield Down, through which it cuts. These lynchets may themselves be of any age to the Roman period, but also on the hill are two roughly square earthwork enclosures (see fig. 1). The westerly, about 35 by 25 yards with an entrance on the east side, has a bank and ditch of slight profile—the crest of the bank being about 2 feet 6 inches above the bottom of the ditch, with an overall measurement of 20 feet. There is a very slight counterscarp bank. The other enclosure, further to the east, measures about 30 by 40 yards and has a similar overall measurement but rather slighter profile, with no trace of a counterscarp bank. There is an entrance on the south side. These enclosures are of a type frequently intimately associated with lynchet-groups in Wessex and seem to be of Hallstatt-La Tène I culture (Hawkes' Iron Age A). The Great Litchfield Down examples and the lynchets may be of this date. In that event the Camp would be later than La Tène I, and it is tempting to suggest that it may be a product of a 'scare' which seems to have caused a widespread rebuilding of old camps and fortification of open settlements some time in La Tène II. The pit dwellings on the nose of Ladle Hill may represent an open settlement to be replaced by the Camp when built and in which the builders no doubt lived while work was in progress. In its sudden cessation we may perhaps have an echo of the same cause that led to the abandonment of the hillfort on the Trundle, Sussex, late in La Tène II, when a reconstruction of the gateways, planned on a grandiose scale, was begun but left unfinished and unused.

THE EARLY NAME OF THE CAMP AND THE OLD POND

The present name of Ladle Hill is not original : it occurs on Isaac Taylor's map of Hampshire of 1759 and is probably earlier than this, but the Early English name of the Camp is preserved in the bounds

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of two tenth-century charters of grants of land in 'Clere', and is of great interest.

In the bounds appended to a charter of A.D. 943 of lands in Clere⁷ we find the Camp referred to as a landmark. The boundary runs south, and comes to the foot of the down. Thenceforward the bounds run as follows: *Thaet be eastern thone holancumb up on dune; thaet swa on tha byrgelsas; thaet swa to meres byrig westan on tha dic*,—that is to say, on the east side of the Hollow Coombe on to the down, then so to the Burial Places; then so to the Camp of the Pond westward to the Ditch. The 'Burial Places' are clearly barrows 2 and 3 (fig. 1); the 'Camp of the Pond' must be the Ladle Hill Camp, and the 'Ditch' the Boundary Ditch running thence. The bounds then continue *andlang dic*—along this ditch to the south. The modern parish boundary follows the same line.

Another charter of Clere of reputed date A.D. 931,⁸ remarkable for its detailed bounds, mentions *herepathe the scyt to meres byrig*—the highway leading to the Camp of the Pond.

This name (which if it had survived would have given 'Meresbury' or some such form) is most interesting, as close to the Camp there is today a large dewpond of some age. Mr Crawford, discussing the old name of the Camp,⁹ suggested that this dewpond is the pond of the Saxon charters, or at any rate occupies the same site. Were this the case it would be an instance of a dewpond of undoubted prehistoric or early historic date, and as such of very great interest in relation to the vexed question of the antiquity of these ponds.

There is however at the foot of Ladle Hill on the west an earthwork, marked 'Old Pond' on fig. 1, which is clearly an ancient catchment pond. In its present condition it consists of a semicircular embanked area, about 40 by 15 yards, against the edge of a trackway which runs diagonally up the hill southwards, and which now cuts below the level of the silted-up interior of the pond. There is today only a drop of some 3 feet into the area of the pond, while outside the bank slopes steeply and is some 13 feet high above the natural slope, which is here

⁷ B.C.S. 787; K.C.D. 1145. These bounds have been studied by Crawford (*Andover District*, pp. 77-8) and Grundy in *Arch. Journ.* 1921, LXXVIII, 130-134.

⁸ B.C.S. 674; K.C.D. 1102. Crawford *op. cit.*, 78-9; Grundy in *Arch. Journ.* 1924, LXXXI, 94-103.

⁹ *Andover District* (Oxford, 1922), p. 77. Photographs, showing the pond completely dry in 1911, are printed opposite p. 78.

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very steep. The pond seems to resemble that at Park Brow, Cissbury, which was constructed at the side of a track to collect surface water from it.

It must be recognized then that the dewpond has a rival claimant to the origin of the Saxon name of the Camp, and while like all dewponds that on Ladle Hill has no details distinctive of any one period of antiquity, the catchment pond by the trackway has features that strongly suggest an Early Iron Age date. One would like to claim a proven antiquity for the very attractive dewpond on the summit of the hill, but this disused pond at the foot makes it necessary to return an open verdict.

OTHER ANTIQUITIES SHOWN ON FIG. 1

Although not strictly bearing on the subject of this paper, a few notes on the remaining antiquities shown on the general plan may conveniently be inserted here.

THE SUNK TRACKS. Sunk tracks, hollowed or terraced by constant traffic on the hill-slope, run up the hill at several points. Above the Seven Barrows two tracks cross where they cut through the Boundary Ditch and are clearly later in date. They are well shown on the air-photograph, plate II. Another track has been mentioned in connexion with the old pond at the foot of Ladle Hill. While in its original state the track was probably contemporary with the pond, subsequent traffic has cut it below the level of the silting which accumulated when the pond became disused.

More than one track climbs the nose of Ladle Hill on the north, and that which curves round and ends nearest to the Camp may be contemporary with it. It is a fine terraced way rising in an even gradient.

PIT DWELLINGS. On the nose of the hill to the northwest of the Camp is a group of depressions marking hut-sites, presumably of an open settlement preceding or contemporary with the building of the Camp. They have no features by which they can be dated without excavation but are most probably Early Iron Age.

THE EASTERN DITCH. East of the Camp is a second boundary ditch of slighter profile, which runs for some 1200 yards towards Hare Warren Down, where it dies out. Its northern end is on the edge of the steep slope of the down.

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THE BARROWS. There are five round barrows on the area covered by the general plan, excluding the three of the well-known Litchfield Seven Barrows. Details of these five are as follows :—

1. A fine disc-barrow, 170 feet in diameter, with a single central tump which has been dug into. Two other slight diggings have been made in the berm.
2. Disc-barrow within the area of the Camp, 40 feet in diameter and of slight relief. The central tump has been dug into.
3. Large bell-barrow, dug into from the top. Now about 5 feet high and 100 feet diameter.
4. Saucer-barrow, close to the last and almost touching. It consists of a ditch and exterior bank, 80 feet in diameter, with a low mound, about 2 feet high, filling the whole of the inner area.
5. Low bowl-barrow, 48 feet in diameter, with no visible ditch. About 2 feet high, and much infested with rabbits.

[Thanks are again due to the Royal Air Force whose cooperation during practice flights enabled these photographs to be taken. Without them a most fascinating problem would have remained unsolved.—ED.]

Notes and News

A MEDIEVAL COLLECTOR ?

Mr C. W. PHILLIPS writes :—

We are told that antiquarianism is a sign of a stationary or decaying civilization. However this may be, it has itself a very respectable antiquity which is attested by the occasional discovery of signs of the enthusiasm in Ancient Mesopotamia, to say nothing of the Roman Empire. Even Medieval England seems to have had its collectors, and a stray glimmer of light is thrown upon this matter, and on the sinister methods of one such, by a curious entry in the Hundred Rolls under the date 1270. When the Commissioners examined the recent affairs of Lincolnshire and heard complaints of oppression and usurpation of the Royal rights they encountered a case which, though unimportant, must be difficult to parallel at such an early date in England.

The translation of the entry runs¹ :—

Further, it is alleged that Robert de Stretton, deceased, aforetime Preceptor of Temple Bruer, unjustly took from Adam Lewyn of Rauceby half a mark of silver, with which sum he bought a gold denarius from Catherine de Rowston, found by the said Catherine, and it is not known by what warrant he did this.

By 1270 the Crusades had all but collapsed and the Knights Templars were rapidly getting the evil reputation for greed and extortion which afforded a handle to their suppressors, Edward I of England and Philip the Fair of France, some four decades later.

As Preceptor of Temple Bruer the offending Robert was the most powerful Templar in Lincolnshire, if not in all England, and he is likely to have had foreign experience in the Near East in the course of which he may have acquired antiquarian tastes.

The district round his Preceptory was a wild heath right down to the end of the 18th century and its passage was so difficult owing to its flat and featureless character that it suffered the indignity of the

¹ *Rotuli Hundredorum*, I, 280.

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erection of a land lighthouse, which still stands as Dunston Pillar by the Lincoln-Sleaford road, though its former purpose is changed and it now supports an effigy of George III.

The Ermine Street runs northwards from Ancaster to Lincoln right through the whole length of the Heath and passes close to Temple Bruer and the two villages of North and South Rauceby.

Rowston, the home of the finder of the coin, lies six miles east of the Street, rather more than half-way between it and the Car Dyke, and close to Ashby de la Launde where remains of a Roman building were found in 1831.² It is improbable that a gold coin found in this district before 1270 would be any other than Roman.

Dr G. C. Brooke of the Department of Coins and Medals in the British Museum has kindly informed me that the only medieval gold coin minted in England before 1270 was the gold penny of Henry III which appeared in 1257, but went out of currency soon because of its unsound ratio to the silver of the day.

He says :—‘ The use of the term “ gold denarius ” in the charge suggests that this is the coin referred to. The Roman gold coin would more naturally be called solidus. On the other hand it seems incredible that anyone should ever have been fool enough to steal half a mark of silver (6s 8d.) in order to buy a coin which was then current at two shillings. Perhaps the currency of the gold denarius led to the word “ denarius ” being used loosely for the Roman coin ; if it was a solidus of 120 grains its metal value would have been 5s 4d. and its antiquarian value was therefore assessed at about a quarter as much again, which seems not unreasonable ’.

COLCHESTER

Mr CHRISTOPHER HAWKES writes :—

The Colchester Excavation Committee’s second season this year lasted from 24 August to 3 October. Last year and this spring it had been established that a pre-Roman native settlement of great size and importance stretched all along the foot of the low hill which rises southward of the river Colne on the west of the modern town. Casual finds had previously been made on the hill itself, and it was expected that this would prove on excavation to have been the effective centre

² Edward Trollope, *Sleaford and the Wapentakes of Flaxwell and Aswardhurn* ; London and Sleaford, 1871, p. 41.

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of native habitation. This may yet be found true of its summit, but it has now been revealed that a large part of its northern slope was untouched by British settlement, and was chosen as a camping-ground by the Roman Expeditionary Force on the fall of the native capital A.D. 43. The great defensive ditch of the camp, some 35 ft. wide and 11 ft. deep, was excavated along a substantial portion of its eastern stretch, and proved to have been deliberately filled in, in two stages, within a short time of its original excavation. Inside the line of the rampart corresponding to it lay a wide belt covered with hearths, middens, and deep rubbish pits, foreshadowing the cooking areas backing on to the ramparts of later legionary fortresses. Inside this again were timber-framed wattle-and-daub barracks, the prototypes of the familiar elongated L-shaped buildings of later forts, of a size each to hold one century, with the centurion's quarters at the end. These buildings are represented by the post-holes that held their uprights, and by the narrow slots dug in the natural sand as bedding for the foot of their wattle-and-daub walls. Flanking the most fully excavated building was a metalled road with a ditch or kennel along it.

The alignment of buildings and road runs obliquely to the defensive ditch, and the camp cannot have been rectangular. The full extent is a matter of conjecture, but the season closed with the location of its western gate, a complicated structure which will be fully excavated next year. The internal buildings seem to have continued in use after the levelling of the defences, and no doubt served as a base for the building of Roman Colchester in and after A.D. 50. Huts also appear over the filling of the ditch, and also over that of a smaller ditch running outside (*i.e.*, west of) it, which is very possibly that of the original 'marching' camp of the army that must have preceded its semi-permanent winter-quarters. Outside the main western gate, remains of a timber defensive system appear, which are either outworks belonging to it, of most peculiar type, or else belong to native fortifications which may be awaiting excavation on the adjoining ground higher up the hill. At any rate, the sequence here of native city, Roman camps, and Roman colony, side by side and each apparently distinct, is affording a chain of evidence for the story of 'Romanization' hitherto without parallel, and pottery, coins, brooches, etc., have been obtained in very large quantities. We understand that full publication of the material already obtained in all parts of the native site is to be undertaken within measurable time, and that a series of detailed reports will thus be inaugurated. Meanwhile it is good to know that no part of the site

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is now threatened with immediate road-building, and that the Excavation Committee is likely to have secured a reasonably long start over the pioneers of future 'development'.

Mr HAWKES was in charge of operations, assisted by Mr R. W. HUTCHINSON, F.S.A. Major BUSHE-Fox acted as consultative director. There was a volunteer party of workers, and paid workmen up to a maximum of 39 were employed. Some financial assistance was given by the Corporation of Colchester, and co-operation was maintained with the Colchester and Essex Museum (Mr M. R. HULL and staff).

SALMONSBURY CAMP, GLOUCESTERSHIRE

Mr G. C. DUNNING, Director of Excavations, reports:—

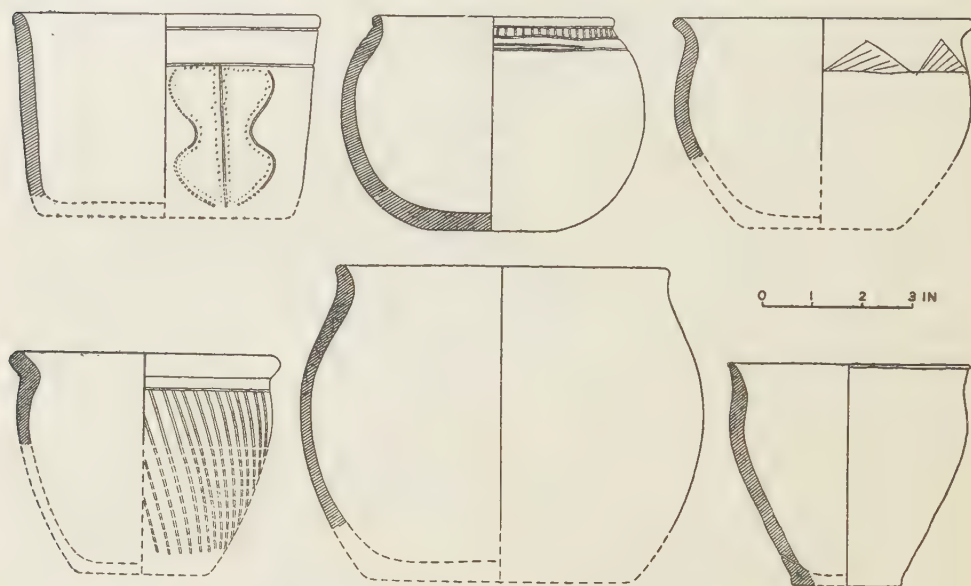
During July and August 1931 the Anthropological Society of University College, London carried out preliminary excavations in the fortified settlement of Salmonsbury, $\frac{1}{4}$ mile east of Bourton-on-the-Water. The work was made possible largely by the generosity of Mr A. S. Owen, of Keble College, Oxford, and subscriptions to a local fund. Great help was given by members of a local committee and by the owners of the land, to all of whom sincere thanks are due for their valuable cooperation.

The camp is on a large patch of gravel at about 450 ft. O.D. in the angle between the rivers Dikler and Windrush, and originally seems to have been bounded on two sides at least by a swamp or lake. The camp is nearly square and covers about 56 acres. On the east side, two curved banks prolong the line of the ramparts for about 500 feet; these may be in the nature of causeways running out into the marsh between the camp and the river Dikler.

A section, 240 feet long and 12 feet wide, was cut through the defences on the east side. The rampart is here 60 feet wide and $2\frac{1}{2}$ feet high, built of loose gravel thrown out of the main ditch, which is 34 feet wide and 12 feet deep. The outer bank is about 40 feet wide and has been much ploughed down; beyond this is an outer ditch, 19 feet wide and 9 feet deep. The ditches are v-shaped, and steeply cut in the gravel. The old turf line was found underneath both banks, and under it were unexpectedly found a number of pits about 6 feet in diameter, filled with a stiff red clay (plate 1). A few sherds of Hallstatt pottery, some with finger-nail marks, were found on the old turf line, and flint flakes only in the pits. A few slabs of

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oolite occurred near the crest of the main rampart, and a considerable quantity of similar stones was found in the lower filling of the big ditch; these seem to be the remains of a dry-built retaining wall, such as is still visible elsewhere in the rampart. Evidence of ploughing in Roman times was found in the ditch, and it seems probable that the rampart was lowered and the stone wall thrown down into the ditch during this period.



POTTERY FROM SALMONSBURY CAMP ($\frac{1}{4}$)

A circular hut-site was found inside the camp, close against the inner slope of the rampart. The hut, 22 feet in diameter, consisted of a ring of eighteen post-holes, on an average 3 feet 9 inches apart, and three central holes for poles supporting the roof. The entrance, 8 feet wide, was to the southeast. (Plate II).

Most of the post-holes were vertical and comparatively shallow, and probably held uprights about 6 feet high, supporting a conical roof of reeds or rushes. There was no inside fireplace, but two built-up stone hearths were found 12 feet south of the hut. On two sides of the hut was a drainage ditch, 2 feet wide and 1 foot deep, which passed beyond the excavation to the south, and probably served to

PLATE I



SALMONSEBURY CAMP, GLOUCESTERSHIRE : SECTION OF RAMPART

PLATE II



SALMONSBURY CAMP, GLOUCESTERSHIRE : CIRCULAR HUT-SITE, FROM NW

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carry away rain-water from the roofs of a row of huts along this side of the camp. This ditch was filled up with rubbish, including pottery and a large number of broken animal bones. A large pit, 4 feet 9 inches in diameter and 2 feet deep, had been dug close to the south side of the hut, and seven more similar pits were found on the west side of the drainage ditch, that is, behind the hut. The pits were neatly cut in the gravel, and averaged 4 feet in diameter and 1 foot deep. They appear to have been storage pits, later filled in with rubbish, which included a human skull and the skeletons of two infants.

On the northwestern side of the camp, an area of 60 by 30 feet was cleared inside the rampart, on the site of a small gravel-pit in which a hoard of 147 iron currency-bars was found in 1860 (*Proc. Soc. Antiq.*, series 2, xx, 183; xxvii, 69). Here four more pits were found, similar to those in the larger excavation. In the filling of one pit was the skeleton of a woman, laid on the right side in a loosely flexed position. Near the pits, a shallow grave dug in the gravel contained a man's skeleton, also lying on the right side, tightly crouched, with knees drawn up to the chest.

The pottery found in the hut-trench and pits consists of hand-made bowls of globular shape, with thin outbent rims, some decorated with incised hatched triangles or curvilinear designs of shallow grooves and dots. All the pottery is placed in the Iron Age, probably in the first century B.C., and may be compared with similar material at Glastonbury and Lydney.

It is hoped to continue the excavations next year, when further areas will be dug inside the camp, and an examination made of the entrance.

TIMBER PALISADES AT HOLLINGBURY

Dr CECIL CURWEN writes :—

'In *ANTIQUITY*, March 1931, pp. 71-2, Mr Christopher Hawkes refers to the rarity of evidence regarding timberwork in the ramparts of Early Iron Age hill-forts in Britain, and cites Cissbury and the Caburn (Sussex), and Uffington Castle (Berks) as the only known instances where even a hint of such methods of construction has been obtained. Since Mr Hawkes' article appeared, the present writer has been engaged in excavations in Hollingbury hill-fort (Sussex) for the Brighton and Hove Archaeological Club, and was fortunate enough to come upon very definite evidence of timberwork, which forms a close

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parallel with that from Uffington Castle. On removing a section of the rampart down to the undisturbed chalk two parallel rows of post-holes were discovered, about 7 feet apart, each hole also averaging 7 feet from its neighbour. The holes were about a foot in diameter and had been sunk about $2\frac{1}{2}$ feet below the original turf-line. In two cases it was possible to determine the actual diameter of the posts that originally occupied the holes, *viz.*, about 6 inches. The posts must have projected above the rampart and have formed the basis of a double fence of some sort. Quite clearly they did not form part of any scheme for revetting the material of which the rampart was made. The date provisionally assigned for this work is about 300 B.C.

'When filling in the excavations, the position of this double stockade was marked by setting up in the original holes lengths of old telephone poles of approximately the correct diameter, projecting about 6 feet out of the ground. This gives the visitor a very good idea of the nature and position of at any rate the skeleton of the original timber defences. The accompanying photographs show the post-holes visible after the removal of a section of the rampart, and also the reconstructed palisade as it now appears after restoring the same section of the rampart. The same arrangement was found in another cutting adjoining the eastern entrance where the holes in which the gate-posts stood were also discovered. The full report is expected to appear in *The Antiquaries Journal* early in 1932'.

The photographs were taken from the top of a tripod consisting of a 15-foot ladder lashed to two 11-foot poles—a very useful contrivance for photographing excavations and earthworks. The increased height enables one to look down upon the subject and get a greater breadth of view.—EDITOR.

NOREIA

Excavations at Noreia in Styria have resulted in the discovery of thirty dwellings belonging to the prehistoric capital of Noricum: a few of these date from the Early Iron Age (Este III), but the majority from the Late La Tène period. The fortifications of the city, 194 metres in length, have also been investigated; they consist of a stone wall and a wooden palisade 49.8 metres long. The city gate (4.2 metres in breadth) was flanked by two semi-circular towers, and there were four towers along the palisade; opposite the middle tower were

PLATE III



HOLLINGBURY CAMP, SUSSEX

Post-holes of a double palisade found under the rampart

Ph. E. C. Curwen

facing p. 492

PLATE IV



HOLLINGBURY CAMP, SUSSEX
Section of reconstructed palisade
Ph. E. C. Curwen

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two Roman siege-towers (1.85 and 2.2 metres in breadth), in one of which Roman potsherds were discovered. Noreia was conquered by P. Silius in 16 B.C.

Traces of camp fires and fragments of vessels have established the site of the camp of the Cimbri at Noreia in 113 B.C.

FLUORESCENCE USED FOR ARCHAEOLOGICAL PURPOSES

Dr FRANZ of the Prague Museum writes :—

‘Mr L. V. DODDS (ANTIQUITY 1931, p. 235), has a note on the uses of fluorescence for historical purposes; I may point out that a similar method of analysis may serve prehistoric research also. The Dutch scholar, van Ledden Hulsebosch, established by the aid of ultra-violet rays that the bones found in a Dutch megalithic tomb came not from burned bodies but from buried ones (*Archiv für Kriminalogie*, 78, 1926). Similarly K. Hörmann of Nürnberg pointed out the practice of drying corpses in prehistoric times in Bavaria (Schumacher-Festschrift, Mainz 1930, p. 77). I myself claim to have established by the same means the authenticity of the so-called second Venus of Wisternitz, a statuette of a woman of the diluvial period from Moravia.

‘There is no doubt that ultra-violet rays afford us a new aid to research. Its value for our purposes is no doubt limited, since fluorescence does not result in the case of all bodies or all materials, and it is only under quite definite conditions that it is of use to the archaeologist. I hope shortly to publish a pamphlet on the subject, for I have made many experiments. The most useful work for consultation is *Die Lumineszenz-Analyse*, by P. W. Dankwortt (Leipzig, 1929), and the article by H. Rinnebach in *Museumskunde* N.F. III, 1931, p. 5, is also helpful’.

EARLY FORMS OF TRANSPORT

Dr CYRIL FOX writes :—

‘Readers of ANTIQUITY interested in early forms of transport may like to know that in Dr A. C. Haddon’s *Study of Man*, 1898, there are two chapters on the evolution of the cart which deal in detail with the invention of solid and spoke wheels, and with the genesis and development of the slide-car. These are fully illustrated’.

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ROMAN VILLA IN CORNWALL

Mr B. H. St. J. O'NEIL sends us the following report:—

Whilst ploughing the field opposite his house in the spring of this year Mr B. Mitchell, owner of Magor Farm near Camborne, Cornwall, found what proved upon examination to be a tessellated pavement of Roman type.

The importance of this find as representing the first recorded Roman structure in Cornwall was at once realized, and under the auspices of the Royal Institution of Cornwall with the co-operation of the Federation of Old Cornwall Societies an Excavation Committee was formed to arrange for a scientific examination of the site after harvest.

Excavation occupied four weeks in September and disclosed a small Roman villa of the common winged-corridor type, measuring in its final state 106 feet from side to side and 55 feet from back to front of the wings, which project 16 feet.

The villa was found to have suffered from the plough and deliberate robbing, probably late in the 18th century, especially in the north wing of which only a few fragments remain, sufficient to indicate that it would no doubt compare in plan and history with the south wing.

The tessellated floor formed the verandah of the villa, facing westwards down the valley of the Red river. The tesserae are of buff-coloured quartz porphyry, locally called elvan, from a short distance away. They vary greatly in size but average 1 inch square and are laid carefully in strips on concrete and fixed with cement. There is no attempt at producing a pattern.

The walls of this part of the house and of the south wing, as originally planned, are of local slate. In one of the rooms during this period two successive floors can be identified, the later one being of the type usual in the house, rammed plaster on quartz blocks with or without a cement crust in all 6 inches thick. At a still later period two gaps were made in the outside wall and three rooms added with granite walls and in one case a fine brick-dust concrete floor, 4 to 6 inches thick.

All the walls were plastered and decorated with a variety of colours and patterns, including a leaf and tulip design, many of them decidedly more artistic according to modern ideas than those frequently met with on Romano-British sites. From various indications it is probable that the masonry was not as a rule carried to any great height, although

PLATE V



ROMAN VILLA NEAR CAMBORNE, CORNWALL

General view from back showing main block and (on left) the south wing

Ph. Messrs Gibson, Penzance

PLATE VI



ROMAN VILLA NEAR CAMBORNE, CORNWALL
The tessellated pavement forming the floor of the Verandah
Ph. Messrs Gibson, Penzance

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in certain places support other than of wood must have been necessary for the extremely heavy slate roof, much of which was found lying among the debris on the floors.

No 'Samian' ware or mortaria were found and pottery of any kind was scarce. All the datable fragments, whether Roman or native imitations, with a few exceptions of slightly later date, are of the usual types of the latter half of the 2nd century A.D. and the one brooch is of the same period. In the absence of definite evidence these may be taken to indicate approximately the flourishing time of the house, although the probability of the persistence of these particular types, especially in a remote corner of the province, must not be overlooked.

Exactly when the addition was made is uncertain but that the owner was still in residence in 235 is shown by the discovery in a recess in the wall of an inner room of the remains of a hoard of denarii, 13 in all, the latest being of Severus Alexander. The six other coins from the excavation are Antoniniani, ranging from 260-273, and were found in the debris of the fallen roof or amongst the ashes of fires lighted in one of the rooms of the south wing, perhaps by squatters after the departure of the rightful owner. Nothing of later date was found and there was no indication of any connexion with mining.

It is, therefore, suggested that this villa was not the residence of a Roman, retired or in service, but of a native. Most of the natives were in all probability still living in huts similar to those cleared at Chysauster near Penzance. This villa may, however, have been built by a native who as a young man left the district to go eastwards, perhaps into imperial service, and returned home upon his retirement. He was accustomed to seeing and living in houses of Roman type and enjoying the usual comforts of Roman life. He still wanted these and, perhaps, also desired to impress his neighbours. Therefore he built himself a house in the familiar style making the best of local materials, importing some luxuries but going without others, such as baths, more difficult to construct or to obtain. Later, in the 3rd century, the house was probably abandoned through fear of Irish raiders whose influence was beginning to be felt. It does not, however, appear to have been destroyed by fire but to have fallen gradually into decay.

Recent Events

The Editor is not always able to verify information taken from the daily press and other sources and cannot therefore assume responsibility for it.

Professor Sir Flinders Petrie, in a private letter to the Editor, makes the interesting suggestion that the Pompeian pottery should be scientifically studied and drawn. It would thus serve as a basis for dating classical pottery all over the ancient world. We do not want any more editions de luxe—we want corpuses of the *common* forms.



In the same letter the Professor draws attention to his own experiments—of course with *nil* results—with the growing of mummy wheat, fully described in *Ancient Egypt*, 1914, p. 78.



A correspondent writes:—‘The throwing axes from Germany depicted on p. 329 of this month’s *ANTIQUITY* (Sept. 1931) bear a curious resemblance to the throwing-stick still in use in Bornu (Nigeria) . . . I do not suggest any cultural affinity. That a spikey object should make a good missile must have occurred to most people’. The sketch added makes clear the very close resemblance.



It is reported that a large ‘town’ has been discovered on the veldt near Heilbron, Orange Free State, by Dr P. W. Laidler. The published account however is so obviously deficient that we can only conclude that a site, apparently of some importance, has been discovered. Further information would be welcome. (*Daily Telegraph*, 5 October 1931).



Dr Frankfort, on behalf of the Oriental Institute of the University of Chicago, is engaged on the excavation of two early sites near Baghdad. Those who know Dr Frankfort’s published work on early painted pottery will expect great results. What a fine thing it would be if the Oriental Institute could excavate a site in Turkestan (like Anau), the region where so much seems to have originated!

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Some paintings have been found under a rock-shelter near Laguna Blanca, Magallanes, Chile. We hope to be able to illustrate them in a later issue.



The Devon Archaeological Exploration Society has been excavating in Smythen Street, Exeter, with the object of discovering more about the city in Roman times. At the depth of 4 ft. the floor of a hypocaust was found, walled with tufa ashlar set with hard mortar. This chamber was filled with rubbish containing fragments of massive red roof-tiles of the usual flanged pattern, a large quantity of fragmentary decorated flue-tiles, and numerous rims and sherds of black-ware cooking-pots and other vessels with crude decorative markings. One fragment of red-glaze has the name of the Graufesenque potter Severus. The most interesting finds were three Greek copper coins, one of Velia in Lucania, not later than 250 B.C., but the building is probably of the second century A.D., and on the evidence of three coins of Valentinianus I., all of the Arles mint, presumably was inhabited up to the end of the Roman occupation.



The prehistoric site at Chysauster farm, near Penzance, has been placed in the charge of the Office of Works and is being systematically excavated. An account of the site and the investigations made since its discovery was printed in the *West Briton* (Truro) of 6 August. Some particulars of it will be given in the forthcoming volume on Cornwall in Methuen's County Archaeological Series.



A good example of a Bronze Age beaker, found at Burton's Green, Essex, and now in the Colchester Museum, was illustrated in the *East Anglian Daily Times*, 7 August.



The age of certain gravels in the New Forest area are discussed in a letter contributed to *Nature* (8 August) by Mr M. C. Burkitt as the result of an examination which he and Mr J. Preston have made of exposures to the east of the Hampshire Avon and particularly in a pit near Hordle.

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A fragment of a Roman inscribed stone from Caistor near Norwich, the first to be found in Norfolk, is reported in the *Eastern Daily Press* (Norwich), 8 August.



Photographs published in *The Times* of 10 August show the admirable manner in which medieval European stonework—mainly fragments of buildings—is now exhibited in the Philadelphia Museum of Art. Students who have not the opportunity of seeing examples of such architecture *in situ* are thus able to study actual details of the craftsmanship of the time.



Excavations which have been in progress at Thermi in Lesbos under the direction of Miss Winifred Lamb, acting for the British School of Archaeology at Athens, are almost completed. The five superposed settlements of the site have been mapped. (*The Times*, 11 August).



The second century theatre already known in the Temple area at Trier has now been proved to be above one of a century earlier, which itself was built over one of Augustan date. (*The Times*, 15 August, p. 7).



A proposal is on foot to excavate and display as far as possible the Roman remains in Capri, the Government having granted funds to Professor Maiuri, Superintendent of Excavations, for the purpose. (*The Times*, 19 August). Work began last October on the Villa Jovis, one of the many palaces of the Emperor Tiberius.



Miss D.A. E. Garrod has published a report on her excavations in Palestine for the British School of Archaeology. (*Bull. American School of Prehistoric Research*, April 1931, no. 7, pp. 5-11).



A British camp has been excavated in Llanmelin Wood, Caerwent. The main camp is elliptical in form, being 750 feet by 400 feet, enclosing an area of $5\frac{1}{2}$ acres, with an oblong annexe of $2\frac{1}{4}$ acres. (*The Times*, 27 August).

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The work of the Cambridge Expedition to the East African Lakes is reported upon by Dr E. B. Worthington in *The Times* of 27 August.



Excavations on the site of the Roman fort at Brough Hill, Bainbridge, Yorkshire, which were carried on in 1926-29, were resumed in August with the particular object of uncovering the whole of the vicus wall. (*Darlington Times*, 29 August).



An interesting note was published in the *Morning Post*, 31 August, on the forgeries—some 2000 metal objects—made by two illiterate but ingenious mud-rakers in 1858 while the Shadwell Docks were under construction.



Arrangements have been made by the Dorset Natural History and Archaeological Society for the site of the Roman temple on Jordan Hill, Preston, Dorset, to be completely excavated under the direction of Lieut.-Col. C. D. Drew and Mr Charles Prideaux. (*Dorset County Chronicle*, 3 September). The work was begun last autumn.



The principal results of this season's work at Verulamium were given in some detail in *The Times*, 12 September. At the meeting of the British Association held in London in September, Dr R. E. Mortimer Wheeler described the progress made and the recent discoveries, which include the remains (as reported) of a *triumphant* arch, the only one in the country. (*The Times*, 28 September).



A report (p. 494) on the Roman villa found at Magor Farm, near Camborne, Cornwall, has kindly been prepared for us by Mr Bryan St. J. O'Neil of H.M. Office of Works. Notes were printed in *The Times*, 15, 22, 30 September.



Inscriptions and rock-carvings are reported from the caves of Kitaba, in the French Sudan, which hitherto have been 'closed' to competent investigators. (*The Times*, 22 September).

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The excavations at Colchester last autumn, on which a note is printed on p. 487, were recorded in *The Times*, 22 September.



An interesting account of the excavations at Lemnos by the Italian Expedition, and of discoveries made elsewhere in Greece, is printed in the *Manchester Guardian*, 25 September.



Remains of wattle-and-daub material are stated to have been found at Luddesdown Court, near Gravesend. (*The Times*, 29 September).



A chariot of Imperial days has been found at Pompeii by Professor Maiuri, and appears to be in good preservation. (*Morning Post*, 3 October).



Particulars of work carried on at Ithaca by Mr Heurtley for the British School at Athens are given by Sir Rennell Rodd in *The Times*, 9 October. Attention has centred on the prehistoric settlement at Pelikata, where a number of Helladic vases have been found.



Wall paintings on gypsum, dating from 1st century A.D., have been uncovered by the Greek Archaeological Society on the site of Ancient Sparta, in a mausoleum in a ravine between the Eurotas river and Mount Taygetos. (*The Times*, 9 October).



Among the illustrations of archaeological interest published in recent numbers of THE ILLUSTRATED LONDON NEWS are the following :—

Funerary pottery, a fine stele of Crito and Timarista of 5th cent. B.C., and a stone sarcophagus of 6th cent. B.C., from the necropolis of Cameirus, one of the Dorian cities of Rhodes mentioned by Homer, and now being excavated by Dr Giulio Jacopi, who is responsible for the monuments in the Italian Islands of the Aegean. (18 July).

The ritual pre-Roman chariot, 7th cent. B.C., from Strettweg, near Judenburg, in Styria, which was found in 1853 and is now in Graz Museum, and other remarkable finds of later excavations. (18 July).

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A unique chryselephantine figurine of a Minoan mother-goddess ('Our Lady of the Sports') found in Crete by Sir Arthur Evans, who contributes an article on its remarkable craftsmanship. (25 July, with one plate in colour).

Pottery, bronze weapons, and pit dwellings (c. 2000-1400 B.C.) from Anyang, Ch'eng Tzu, and Wa Chia Hsieh in China. (8 August).

Etruscan sculpture: funerary portraiture and decorative reliefs found in the tomb of the Pellegrina at Chiusi, Italy. (22 August).

Greek statuary (5th-4th cent. B.C.) from the Agora at Athens. (29 August).

Discoveries from Toltec sites in Mexico, with note by Dr Thomas Gann. (29 August).

Terra-cotta reliefs found in the necropolis of the Isola Sacra, at the mouth of the Tiber, which illustrate in an interesting manner the trades of the miller, baker, blacksmith, surgeon and wine-merchant of Ancient Rome. The one from the sarcophagus of a wine-merchant shows a lighthouse of four storeys. (12 September).

Funerary pottery, idols, and stelae from a graveyard at Anibe in Nubia, c. 2000 B.C. (19 September).

The Temple-tomb of the House of Minos in Crete found by Sir Arthur Evans, who describes in detail its importance. The illustrations include the gold signet-ring which led to the discovery of the tomb. (26 September).

Mosaic floors from a 6th century monastery at Beth Shan, in Palestine. (3 October).



The discovery of a large sculptured stone representing a manifestation of the god Shiva as the creator, protector and destroyer of the World is reported. The stone was found on Golanji Hill, near Parel in the Island of Bombay, and is described and illustrated in *The Times*, 31 October, pages 9 and 14.

Some Recent Articles

This list is not exhaustive but may be found convenient as a record of papers on subjects which are within the scope of ANTIQUITY. Books are occasionally included.

Survivances des civilisations méditerranéennes chez les Berbères, par F. Benoit. *Revue Anthropologique*, 1930, XL, 278-293.

Cratères et Candélabres de Marbre trouvés en mer près de Mahdia [Tunisie], par A. Merlin et L. Poinssot. Published by the Tunisian Government [agents: Tournier, Tunis; Vuibert, 63 Bd. S. Germain, Paris] 1930. pp. 143, with 40 plates and 9 figs.

Readers of M. Merlin's article in ANTIQUITY (IV, 405-414) will be glad to know of this fine book in which some of the finds from the wreck of Mahdia are dealt with and fully illustrated.

The bath-house at the fort of Chesters (Cilurnum), by Sir George Macdonald. *Arch. Aeliana* (Newcastle-on-Tyne) 1931, ser. 4, vol. VIII, 219-304, with numerous plans and illustrations.

This little monograph is an elaborate and detailed study of the bath-house in question, and it will be indispensable to all future excavators and students of similar remains.

L'Acheuléen supérieur de la grotte d'Oumm-Qatafa (Palestine), par René Neuville. *L'Anthropologie*, 1931, XLI, 13-51, 249-263.

Œuf d'autruche gravé et peint, et autres trouvailles paléolithiques du territoire des Ouled Djellal (Sahara septentrional), par l'Abbé Breuil et le Docteur Clergeau. *L'Anthropologie*, 1931, XLI, 53-64.

L'Age de l'art rupestre nord-africain, par Hugo Obermaier. *L'Anthropologie*, 1931, XLI, 65-74.

Concludes that the alleged pleistocene age of the North African rock-carvings is unproven and unlikely. 'The appearance, amongst these representations, of species that had long been domesticated is in direct conflict with the theory of a pleistocene, palaeolithic date. We think we shall not be far wrong in assigning the earliest of these artistic efforts to a later period—to one in which North Africa was already occupied by pastoral and agricultural peoples'.

Notes on the Parthian campaigns of Trajan, by R. P. Longden. *Journal of Roman Studies*, 1931, XXI, 1-35.

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Hadrian's Wall : 1921-30, by R. G. Collingwood. *J.R.S.*, 1931, **XXI**, 36-64.

A clear summary of the extremely important excavations that have taken place during this decade.

Five town-walls in Hispania Citerior, by I. A. Richmond. *J.R.S.*, 1931, **XXI**, 86-100.

Describes the walls of Lugo, Astorga, Barcelona, Léon and Zaragoza.

Woodeaton coins, by J. G. Milne. *J.R.S.*, 1931, **XXI**, 101-109.

An account of Roman coins from the mysterious but prolific site on Middle Hill near Oxford.

Essai de Coordination des périodes archaïques de la Mésopotamie et de l'Élam, par L. Ch. Watelin. *L'Anthropologie*, 1931, **XLI**, 265-272.

Stelés funéraires Gueznaïa (Rif méridional), par les docteurs Russo et J. Herber. *L'Anthropologie*, 1931, **XLI**, 289-304.

An interesting account of wooden anthropomorphic gravestones. Nothing is however said, perhaps because the inference is assumed, of the obvious connexion between these gravestones and the dolmen-idols of the megalithic culture. The survival of what seem to be modern dolmen-idols still in use in Morocco would be a highly important fact.

El origen de la columna de tipo mediterraneo, by Martinez Santa-Olalla. *Ipek*, 1929, 35-45.

Connects the column whose top is wider than its base with the supporting-structures (monolithic and T-shaped, or of many stones piled one on the other) of Balearic 'cyclopean' huts.

Die Aeltesten beziehungen zwischen Asien und Afrika nachgewiesen an den Haustieren, by H. Hiltzheimer. *Africa*, 1930, **III**, 472-83: (English summary).

Zur Anthropologie der prähistorischen Griechen in Argolis, by C. M. Fuerst. *Lunds Universitets Arsskrift*, N.F. Bd. 26, no. 8, 1930.

All contributions to Greek anthropology are welcome, particularly those forming the subject of this article, which belong to the Middle Helladic period.

Report on the Excavations at Hembury Fort, by Dorothy M. Liddell. *Proc. Devon Arch. Exploration Society*, 1930, **I**, 40-59, numerous illustrations.

L'Art Byzantin (15th vol. of the series called 'The Grammar of Styles', by Henry Martin). Librairie R. Ducher, 3 rue des Poitevins, Paris, 6°. 65 illustrations. 10 francs (unbound).

Reviews

THE ARCHAEOLOGY OF ROMAN BRITAIN. By R. G. COLLINGWOOD. *Methuen* 1930. pp. xvi, 293, 8 plates and 68 figures. 16s.

This remarkable book is a delight to those who read it, and a triumph for its author, who only hints at how difficult it was to write. But we may gauge how far it advances beyond older treatments of the same theme by comparing it with John Ward's two books, published long ago by the same firm. These were excellent and much in advance of their time; but their author built too solidly upon too slight a foundation of fact, and since then facts have accumulated too fast for most students to digest. Mr Collingwood, however, grew up with most of the new facts, and that is part of the secret of his success, the other part being clarity of thought and expression. All who are interested in the Roman world, and, philosophically, in the attitude of mind which the study thereof develops, will read this book with admiration and gratitude. It provides the text-book which the study of the British province has long demanded.

The condition of most of the chapters shows that the material considered is now sufficient to admit of classification. Where it is not, the author does not hesitate to say so, and, even then, usually succeeds in advancing the problem a stage further by defining it precisely. But it is of interest to see which sections a later edition should amplify, if workers follow the lead given by the book as it stands. The 'flying-column' type of exploration, inaugurated by Haverfield and Macdonald, would, if revived, greatly enlarge our knowledge of field-entrenchments. A new edition of Hyginus would greatly help the dating and interpretation of the text upon which knowledge of these entrenchments is based. We doubt whether many troops mentioned in that work can go back to Trajan's time, and prefer a third-century date. The classification of Scottish marching camps by Schulten, according to size, is worth attention, and deserves mention here, while further exploration might show that the *tutulus* was used with earthen ramparts, and the *clavicula* with turf-work. The reviewer ventures to doubt whether Hyginus is really prescribing them for use together. The term 'semi-permanent camp' will, perhaps, disappear, giving way, as knowledge grows, to 'siege-camp' and 'manoeuvres-entrenchment'†. But these are prophecies, made to illustrate the stimulating effect of this particular section.

Equally stimulating and valuable is the section on forts. We suggest that there is sufficient evidence that it was the Severan age when artillery-defence began in earnest, for *ballistaria* at Carnarvon and York take the change into a wider field than the Wall-district, while the new third-century walls, as at Rome, are entirely planned upon the conception of artillery-defence. Very useful is the classification of Saxon Shore forts, with the early examples of Reculver and Brancaster, hinting that estuarine defences preceded organized patrols along the coast. In a previous note in this Journal,* we have pointed out the place of St. Laurent-sur-Othain as a dated simple type. In detail,

† Or 'marching-camp'?—EDITOR.

* ANTIQUITY, September 1931, p. 349.

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the account of Melandra must be amplified by a reference to *Excavations at Toothill and Melandra*, where a double gate in timber is described, with traces of a wooden *principia*. We hope that the fort, seen from the air by the Editor at Castor on the Nene, will soon be available for inclusion in the multiple-ditch series ; and we should have very gladly seen Hod Hill included as a regular Claudian earthwork. Also, in connexion with the size of forts, it must be mentioned that most large ones must have been for *alae* rather than *cohortes milliariae*, having regard to inscriptions and *diplomata*. We should also have liked the author to have used, in dealing with signal-stations and lighthouses, the quotation from Venerable Bede on *fari*, which he made to the reviewer long ago.

The account of the frontiers will be extremely welcome as a non-technical account of the complex problems presented by Hadrian's Wall. If, however, Housesteads is historically earlier than the Wall, it should be observed that only its rounded north angles suggest this ; and similar angles are possessed by Birdoswald, which comes between Turf and Stone Walls in date, and is not associated with the Vallum. The evidence for an early site at Chesters might also have been mentioned. There is no account of the Wall-ditch, and the angle of its sides was not everywhere that given in fig. 21.

On the Antonine Wall, there is now more evidence to hand for a second and short occupation than was available in 1911, since both Balmuildy and Old Kilpatrick produced new facts bearing upon the point. But the author wisely cautions against too rapidly accepting the tempting conclusion that this Wall lasted beyond the days of Ulpius Marcellus.

In connexion with town-walls, we find ourselves in entire agreement with the observations on Silchester, which would tend to date the Wall fairly early ; and would venture to point out another early feature in the not far-distant town of Cirencester, namely, the setting of the west gate in a re-entrant. In connexion with baths, we wish that the later baths at Wroxeter had been included, since these are the only British analogue yet discovered to the large town-baths of the Continent. The absence of really large halls for social intercourse is a striking commentary upon the smallness of British towns. Only the amphitheatres serve to arrest the growing impression that really enduring corporate life was lacking.

Most valuable is the commentary upon country-houses. It would be interesting, however, to know whether courtyard houses were influenced by the classical country-houses with large wings and a vista in front of them, such as appear in first-century landscape paintings and parkland houses like the Domus Aurea and its analogue embodied in Hadrian's Villa at Tivoli. A re-arrangement of the last part of section four and of section five upon this scheme would at least be interesting, and might classify rather more conveniently. The section on the Basilican house, with continental parallels, is of real help in reminding us that this house may once have been more general than extant remains suggest. But there are still the Irish and Scandinavian parallels to be fitted in, demonstrating the really primitive nature of the type.

The section upon the Celtic temples might have profited by the inclusion of the Autun example, where the evidence for form is so clear. But even more interesting is the descent of this type to the Swedish and Germanic *Stavkyrke*, shortly to be published by Dr Boethius. *Mithraea* are rare enough for us to welcome the plan of Housesteads *mithraeum*, and to agree with the author in seeking another explanation of the example claimed for Colchester.

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To the chapter on tombs there is little to add. But the recent discovery in Rome that pipe-fed tombs often received new deposits of family ashes in this way, after each fresh cremation, should give us pause before accepting all such remains as libation channels.

The chapter on inscriptions opens a commentary upon the smaller relics which is a masterly classification, with many new features, while the drawings for these whet our appetite for the author's new work on the Roman inscriptions of Britain. We rejoice to see the Ravenscar inscription taking its proper place among building-records, and wish that all the photographs had been as good as this drawing. Many readers, for example, will miss the delightful floral scroll in the background of the panel containing Victor the Moor (plate III). The chapter upon Samian ware is an ideal treatment of a difficult subject in limited space, and we particularly admire the crisp definition of the changes in types. The treatment of coarse ware is also good, if the beginner will observe all the cautions given in using it, and it will form an admirable starting point for study. So will the brooches, with the difference that, while types of coarse pottery were familiar to most excavators, the classification of brooches covers new ground to most experts, and will form the basis for all future study of Romano-British brooches. There is little to say about the chapter on implements, except that it fulfils its purpose admirably, demonstrating the essential likeness, from age to age, of all simple hand tools. The writing tablets really class as inscriptions, but special praise must be given, not only to the illustrations, but the skill which went to decipher the text. Finally, a complete set of good examples of Emperor-portraits on coins, from Augustus to Honorius, supplies a long-felt want, common both to excavators and the general public.

IAN A. RICHMOND.

TYPOLOGISCH-CHRONOLOGISCHE STUDIEN ZU METALLSACHEN DER VÖLKERWANDERUNGSZEIT. I. Die sächsischen Spielarten der provinzial-römischen Zwiebelknopffibel. II. Die gleicharmige Fibel. By FRITZ ROEDER. *Jahrbuch des Provinzial-Museums Hannover*. N.F. Bd. 5, 1930. [August Lax Verlagshandlung, Hildesheim]. pp. 128, 86 figs. in text and 22 plates. Price not stated.

Professor Roeder is now well-known to us for the thoroughness and enthusiasm with which he is working upon problems of the earliest Migration Period, and when he does at last produce his 'History of the Conquest and Colonisation of England by the continental Germans' there is no doubt whatever that it will be a most notable book. He has already given us three preliminary papers of considerable importance (cf. *ANTIQUITY*, II, 360 for one of these) and we have here a fourth which is in fact his longest and most ambitious excursus; it contains detailed accounts of two complete brooch-families that are singled out for this special treatment because they come within a select group of antiquities regarded by the author as the *Leitfossilien* of his period. The first section of the work is concerned with the Saxon relatives of the provincial-Roman cross-bow brooch, among which are two English representatives, one from Luton (dated ± 400) and the other from Kempston (dated ± 425); the second half of the paper deals with the equal-armed brooches, which are divided into seven types, our English examples coming in the three which are morphologically and chronologically late. Thus the Kempston equal-armed brooch, with geometrical chip-carving only (type v), is dated ± 450 ; the Sutton Courtney brooch, with scroll-ornament and marginal animal-forms (type vi), is dated ± 475 , and the two Cambridgeshire brooches,

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which have in addition projecting animal-heads (type VII) are put down as ± 500 . The dating of these last two types is the least certain of Professor Roeder's results and we must hope that a little more evidence on this point will be forthcoming some day; but on the whole I see no reason for disputing the author's chronological scheme, even though I should like something safer than Plettke's chronology of the Westa-Wanna pottery as principal foundation of the structure. Still I must admit that this seems to be a reasonably solid basis, for three N.E. Gaulish equal-armed brooches of Roeder's type II were found with coins of 360–80, and this is in close agreement with Plettke's date for the urns found with the Saxon examples of the type II brooch. In addition to the account of the brooches the paper also contains a short introduction that may be read with profit by students of the initial Saxon colonization of this island, and a section dealing with the 'shield-grip' brooches (p. 44ff). The illustrations, which are numerous and excellent, provide us with a very large quantity of hitherto unpublished material. We await Professor Roeder's further studies with impatience. In the meantime I make him a present of the fact that the Richborough pearl- and crystal-encrusted pottsherds, about which he enquired in his 'Window-urn' paper, are safe in the Liverpool museum.

T. D. KENDRICK.

THE SARCOPHAGUS OF AN ANCIENT CIVILIZATION: Petra, Edom and the Edomites. By GEORGE LIVINGSTONE ROBINSON, *with an introduction by* DR W. F. ALBRIGHT, Professor in Johns Hopkins University and formerly Director of the American School of Oriental Research, Jerusalem. *New York: Macmillan Company, 1930. pp. 495, with 86 illustrations (2 in colour), 10 detail plans, and map of Edom. 31s 6d.*

Of the 32 chapters 7 are by other contributors, all except one former professors at the Beirut American University. The Author in a foreword tells us that 'we offer our contribution therefore not so much to correct or even to convince, as to register our impressions of the vast necropolis'. The impressions were gathered in five journeys between 1900 and 1928 made on horseback, by rail and by car. The journey may now also be made by air and a motor road goes into the village of Elgi, within three miles of the Sik. Dr Robinson discusses at length the religious question, with a particular interest in 'High Places'; he himself discovered the largest in Petra at Zub Atuf, but whether these were connected with Dushara 'him of Seir' or not, he expresses no opinion. Zub Atuf—the phallus of Atuf—from other evidence seems to date from the last half of the 1st century B.C. Chapter XIII is devoted to 'ancient high places in the O.T.'. but seeing that Petra dates from the reign of Cyrus 558–529 B.C., we do not get much further. Nabataean Petra and Biblical Edom have nothing in common, the latter remarkable for the spite the Jews bore it. Outside Petra on the highest mountain is the Moslem shrine of Jebel Haroun—the Tomb of Aaron. The largest spring is the spring of Moses and the whole area is the valley of Moses, as it was to the Crusaders who credited the monuments to the children of Israel. Whatever value these sites may have as the source of Biblical tradition, they have a respectable antiquity, being recorded by Josephus; Dr Robinson will have none of them, finding the burial place of Moses in the Wadi Arabah, a pure guess.

Of the importance of Petra as the centre of a great civilization, in close contact with Persia, with Selucids, with Ptolomies from whom they borrowed their architecture, an emporium whence trade moved in a vast stream from east to west and vice

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versa, the predecessor of Alexandria, Palmyra, Constantinople, Venice and London in the distribution of the East India trade and the still more ancient trade in incense from South Arabia, there is nothing.

As a book it is useful, it is in English, it gives all the Biblical references to Edom and most of the classical to Nabataea but adds little to our knowledge of Petra and offers no solution to the problem of the why and the wherefore, nor any answer to the hundred and one questions that arise in the mind of everyone who has visited the place. The authors are moved sentimentally by the scenery, the colour and the form of the rocks, but have never heard of the Hamra further south, of the same colour, more extraordinary in its form and extensive variety, yet so rarely visited.

G. HORSFIELD.

BYZANTINE MOSAICS IN GREECE: Hosios Lucas and Daphni. By ERNST DIEZ and OTTO DEMUS. *Harvard University Press, Cambridge, Mass.* 1931. pp. 117, with 15 plates in colour, and 136 figures in half tone. \$8. [*Oxford University Press*].

The book deals primarily with the mosaics of Daphni and Hosios Lucas, but in the process of the examination some welcome additions are made to our somewhat scanty knowledge of the mosaics of Nea Moni on Chios, of Nicaea, of Seres in Macedonia and elsewhere. The admirable decoration of the church at Daphni has been universally recognized, since the classical study by Millet, as one of the finest monuments of the mid-Byzantine period that have survived. The mosaics of Saint Luke are here, for the first time, given the really important place in the history of Byzantine art that they deserve. For although already published and studied in detail by more than one authority, they have never been regarded as of the first importance. The reasons for this are at once shown by detailed examination, for, with the exception of the Pantocrator in the dome and a few other subjects, the Daphni mosaics belong to the pictorial, representational, Hellenic tradition, whereas those of Saint Luke are in the monastic, hieratic style of the East, which places a greater importance on the inner meaning of the subject than on pleasantness and accuracy of representation. The one style has long been understood and appreciated; the other, until lately regarded as primitive and repulsive, is only today coming into its own. We thus see in the two monuments under discussion the two main traditions in Byzantine art, the one seeking ideal representation and beauty of form, the other delving below the surface and treating the purely representational side with carelessness.

This is without doubt one of the most important books on Byzantine art that have appeared during the last ten years or so and it is to be hoped that it will prove to be the forerunner of a series of studies of the same nature in the future. The joint authorship, too, seems a happy and markedly successful combination. To the pen of the one author, Diez, we are indebted for the first chapter, a most interesting general survey of Byzantine art of the middle period. Attention is here drawn to a notable fact usually disregarded; namely how surprising it is that the art of the Macedonian and Comnene periods was not more affected by foreign influence. The capital was not only a veritable repository of the products of all the arts of all civilized or semi-barbarian lands, but it was also a thoroughly cosmopolitan city. Yet the old guilds, through innate conservatism, maintained the purity of Byzantine art and even produced the most subtle and mystical examples of it. We are prone to discuss and to stress the importance of the various elements, Greek, Roman, Hellenistic or Oriental, which together composed

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Byzantine art, yet to forget the power of what was, by the tenth century, purely Byzantine. Diez points out how absurd would have been a synthesis of Hellenistic, Chinese, Persian, Bactrian, Indian, Islamic, Scythian or East Slav elements, if unrestrained by the conservatism of the Byzantine guilds (p. 15). Rather less clear are some remarks on page 18 :—' Thus we should have found the same subjects depicted on the tapestry and clothes as we find on the sarcophagi which have been preserved. According to these and other examples, the later mural and mosaic painting was descended from an original tapestry with figural weaving and embroidery, as Kraus has remarked '.

Although the mosaics of Sicily are in the tapestry style, the question of descent is a more complicated one and there are many facts which suggest that the actual parentage lay in exactly the opposite direction. One cannot throw aside the evidence afforded by the wall-paintings of Rome, of Alexandria or of ancient Egypt in a quest of this nature, in favour of somewhat hypothetical woven stuffs or embroideries which are certainly of later date.

The second chapter, by the same author, contains much illuminating material, especially that which traces the evolution of the underlying spirit of a great deal of Christian art from early religions of the east Mediterranean, as well as from the Mazdaic cult. The real importance of the Dura paintings is brought to light, not only as regards content and symbolism, but also in respect of their artistic convention. But, like his former master Strzygowski, Diez seems apt to jump to somewhat hasty conclusions when speaking of Mazdaism, for he remarks that the Dura frescoes show 'for the first time painting in full face'. They may be the first wall-paintings in this manner; but in tracing the effect of the full-face posture in later Byzantine art, the tomb portraits of Egypt cannot be disregarded. They developed apart from Mazdaism and exercised, at any rate as far as panel painting was concerned, a considerable influence on the later art of the Christian East.

The third chapter, which deals with the iconography, is the work of Demus. He points out the essential differences which distinguish the painted or mosaic decoration as we see it in the two churches under discussion from other styles in mosaic, such as the picture compositions of Saint Mark's or the tapestry-like conventions which we find in Sicily. He then discusses the arrangement of the scenes and subjects throughout Byzantine church decoration, a continuation of the work inaugurated and carried so far by Millet. More elaborate, however, is the admirable discussion of the iconography of individual scenes which follows. Such work is of the first importance in tracing out the history and parentage of individual groups of monuments and it comes as a most welcome continuation of the pioneer work of Millet.

In the following chapter, by Diez, the importance of colour is stressed from a symbolic as well as from an aesthetic point of view. There were, in fact, in the hieratic oriental art which we see at Saint Luke's, as strict rules for the use of colouring of dress as there were in iconography. But the more subtle colouring, which we see in the shading or in the faces, is of the first importance in the determination of date, school or artist. As the author aptly points out, the importance of colour has till recently been neglected and it will not be long before a majority of coloured plates becomes an essential in every book of art criticism.

A short chapter on the work of different masters in the churches under discussion follows, wherein Demus calls just attention to the universal mediocrity of style which an over elaborate restoration has given to some of the mosaics of Daphni. In the seventh and last chapter the same author discusses the dissemination of the various mosaic

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styles of the middle Byzantine period. That which we see at Saint Luke's is closely related to work in Saint Sophia at Salonika ; it develops elsewhere, chiefly in the more distant monasteries, and ends at Venice in a decline, brought about by the adoption of the more elegant, less austere, ' court style ' which we see at Daphni. This latter style spreads as widely as the monastic ; we see it in Sicily in the twelfth century and in Venice it reappears in more than one wave.

The book closes with an historical appendix, dealing with all the mosaics of the period which have entered into the discussion ; a system which is to be highly commended.

A few words may be said as to the apparatus of the book. The plates are plentiful and excellently reproduced ; the large number in colour (15) greatly adds to the value of the book. But these would have been better placed, together with the half-tone reproductions, at the end of the volume, instead of throughout the text. The colour plates are mounted on dark paper, so that there is no excuse for the fact that no descriptions whatsoever accompany them. In a production in many ways so admirable this is regrettable. The absence of an index is a grave error.

D. TALBOT RICE.

THE GREEK TRADITION IN SCULPTURE. By WALTER R. AGARD. *Baltimore : Johns Hopkins Press (London : Oxford University Press), 1930. pp. 59, with 34 figures. 13s 6d.*

This book, primarily perhaps intended for the American public, doubtless contains a ' message ' (I think that is the correct word) for other peoples too. Professor Agard first introduces his readers to the social, as well as to the aesthetic, aspects of Greek sculpture, well restating familiar matter. The brevity of the treatment probably accounts for some statements which seem sweeping or perfunctory : and the whole conclusion of the matter smells somewhat of the lamps which illuminate the shrine of the Hellenist : but he who would proselytize must needs idealize, and with the general principles enunciated no amateur of Greek art will quarrel. Professor Agard sums up by stating that Greek sculpture was a ' community art ', not something for the precious few : its aesthetic significance lay in the creation out of marble or bronze *by the sculptor's own hand* of forms which appealed to the emotions ; and, to judge rightly, we must go to originals and not to photographs or casts.

We are on less firm ground when dealing with the continuance of the tradition, because too often the manners are aped while the spirit is not expressed ; and Professor Agard steps delicately here, since (as he observes in conclusion) it is not enough to recapture technique : we need to restore the spirit of those times, the wholesome attitude towards life. The tradition made its way into India and China : in Europe it struggled on into the Middle Ages, and flared up at the Renaissance ; better understood by study of the Parthenon sculptures, it was driven by the insipidity of the Canovas, the Thorvaldsens and the Flaxmans into a moribund academism from which the realists revolted. The revolt, however, was not against the Greeks : and Rodin saw that to them the world would return for health and rest. And now, Professor Agard hopes, a generation of sculptors trained in Greek art as revealed by excavations will fulfil Rodin's prophecy—if and when society produces the favourable conditions.

So far, good ; but if sculpture is to be once more a ' community art ', it must produce works which have no taint of the academic and unfamiliar : and most communities lack that fortunate environment which enabled the Greek sculptor to portray, without departing from the common experience of the ' man in the street ', the human

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form in the two modes ideally suited to sculptural representation, the nude and the draped. Even if in our athletics we accustom ourselves to the former, our climate and our ways of life seem to preclude the reproduction of the graceful folds of Greek drapery : and we await the advent of a great sculpture which shall exploit aesthetically the common man as he ordinarily appears.

Professor Agard's sense of form and structure should not have allowed his printer to inflict ' derivative ' on us, or himself to write ' Bourdelle was a professed *enthusiast about Greek art* '.

W. L. CUTTLE.

THE BRONZE AGE. By V. GORDON CHILDE. *Professor of Prehistoric Archaeology in the University of Edinburgh. Cambridge University Press, 1930. pp. 258 and illustrations. 8s 6d.*

Professor Childe has undertaken a difficult task. If he has not altogether succeeded it is not because he has not made a gallant effort, or was not well equipped for the task. But is it really possible to compress a summary of the many phases of the Bronze Age of Europe, worthy of the author, into less than 247 small pages ? (This number of pages includes many full page and other illustrations).

The average person, who wishes to gain a general idea of the European Bronze Age, in reading this book would probably feel that he could not see the wood for the trees, while the professed archaeologist, desirous of a study of any one region or phase, would necessarily look for less generalization and more precision of detail. The achievements and ability of Professor Childe are universally and justly admired, and it is on this account that regret must be felt that he was prevented from doing himself justice within the narrow limits prescribed in this little book. A book of the same size, by the same author, dealing with any one of the regions here dealt with would be of real value to the archaeologist and welcome to the general reader.

A summary of the contents will give an idea of the scope of the book, and of the wide areas of which it treats. Chapter I, The Implications of the Bronze Age, relates the discovery and manufacture of bronze, the dating of its use in the East and the eastern Mediterranean, and its subsequent introduction into Europe. Chapter II, Metallurgy and Trade, deals with mining, casting, trade routes and the chronology of the Bronze Age. Chapter III is an admirable and valuable study of typology. The following chapters deal with the three divisions of the Bronze Age : early, middle, and late. In the early period Central Europe, Upper Italy, Spain, and Great Britain are surveyed ; in the middle period Scandinavia, the tumulus Bronze Culture, the Italian Terremare, Hungary, the Rhone culture, Great Britain ; and in the late period Sicily, Sardinia, the Villanova culture in Italy, the Lausitz culture, the Alpine urnfields, the North, Hungary, Russia, Great Britain. There is a final chapter on Races, and the book is completed with a useful bibliography and Index.

Naturally many points arise that lend themselves to criticism. The limited space available leads to short unqualified statements, and so few things in prehistoric archaeology really admit of such treatment. For instance it is said (p. 155) that objects of Nordic type, battleaxes and flint daggers, never occur with beakers of class B, in Britain. Wiltshire alone affords at least one well attested exception to this. Is there really any evidence that our Bronze Age ancestors inhabited a site from one to five years and then moved on ? It is a little difficult to see why disc-barrows should be included in the early period seeing that the burials in them, so far as known, are invariably after

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cremation, while the Beaker people, characteristic of the early Bronze Age in Britain, almost invariably inhumed. Surely the outstanding feature in connexion with the discovery of 'incense' cups with burials in barrows, is that they usually accompany cinerary urns or simple cremations, and were not used themselves to contain the remains ; to state that they sometimes contain cremated remains, without qualification, really confuses the point. The illustration of a 'grape' cup (p. 188) hardly does justice to a form of vessel that is almost entirely confined to Wiltshire. In connexion with the end of the Bronze Age in England it is scarcely justifiable to say that the newcomers who introduced late Hallstatt types of pottery into southern Britain, as represented at All Cannings Cross and elsewhere, only arrived in La Tène times, because brooches of La Tène I type are found. All Cannings, for instance, certainly survived into La Tène I, and the brooches are at least as likely to belong to the latter end of the occupation as to the beginning. They cannot therefore be used as evidence for the late arrival of the people using late Hallstatt types of pottery. These are all, no doubt, minor points, but they serve to show that over-compressed treatment is not well adapted to matters dealing with still doubtful, and therefore highly controversial, points of prehistory.

M. E. CUNNINGTON.

A HISTORY OF THE VIKINGS. By T. D. KENDRICK. *Methuen and Co.*, 1930. pp. 412, with 28 illustrations and 28 maps. 18s.

Such a book as this was an urgent desideratum. Apart from Keary's well-known *Vikings in Western Christendom* (1891), there was no substantial work in English of real historical value devoted solely to the history of the Viking movement, and that work is now largely obsolete, owing to the amount of research that, since its publication, has taken place, with astonishingly fruitful results, not only in Scandinavia itself but in other lands as well. The bibliography of the subject has now reached immense proportions, and the scholarship necessary to cope with it, in practically every European language from Russian to Irish, is such that no one living man can master it at first hand. Yet not the least impressive thing about this work is the evidence of how thoroughly conversant Mr Kendrick is with the whole field of study, and it will be a very long time ere his book can be superseded.

After a 40-page Introduction designed to 'orient' the reader as to the general significance of the great Viking movement, Mr Kendrick devotes four chapters to an admirable general survey of the Scandinavian lands and peoples from the earliest dawn, down to the time when that northern *officina gentium* began to pour forth its surplus stock over Europe in the 9th and 10th centuries of our era. The remaining two-thirds of the book describes the history of these Viking invasions in each different country in turn—Russia, the Baltic coasts, the Western Empire, the British Isles, Faeroe, Iceland, Greenland and America. To deal adequately in 400 pages with such a vast mass of material, a book must needs be, as this unquestionably is, relentlessly pruned.

Up to a point that is all to the good ; but the result is that Mr Kendrick's work is a chronicle of events rather than a history. It is strongly reminiscent, as much in style as in matter, of a lengthy encyclopaedia article. On the inner and social life of the Vikings, on their culture in the widest sense, it suffers by comparison with, for example, the brilliant studies of the late Dr Alexander Bugge. But it is bad criticism to blame an author for not doing something he never set out to do, and it would be churlish indeed not to be grateful for such a comprehensive, accurate and indispensable record of Viking

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activities. It is impossible here to enter into discussion on any of the points raised and it is the less necessary as the author has studiously avoided controversy. His book can be accepted as a carefully weighed statement of 'the best that is known and thought in the world' today on the sequence of events in Viking history.

English readers will naturally be most interested in the Scandinavian influence on our own country, and here, if Mr Kendrick errs, it is on the side of understatement. Linguistic evidence alone shows that influence in various fields to have been profound. But even more interesting is the growing evidence of the early date at which contact was first made between this country and Scandinavia. Before Pytheas visited Norway about 330 B.C., he must have been told in the north of Scotland of the route thither; a fact which implies prior contact of course. The oak-tree coffins of the early Bronze Age found in Yorkshire and Denmark, and the Bronze Age gold lunulae of Irish type found in Denmark point to the same thing. But even earlier still, at the end of the megalithic period, Mr Kendrick suggests that the port-hole cists imply a connexion between Western England and Sweden, though he is cautious enough to explain this through the media of Northern Germany and Northern France. Messrs Peake and Fleure, however, are much bolder, and affirm downright (*The Way of the Sea*, p. 161) that about this time (2000 B.C.) the custom of erecting dolmens had already arrived in Denmark by way of the sea around the north of Scotland. Such a statement is sufficiently staggering, but about that time apparently voyaging over the open ocean was really taking place, for amber ornaments found in Jaeder in southwest Norway are believed to have been imported direct from Jutland.

Considering the difficult character of the text, misprints are remarkably few—the most noticeable being the regular appearance of *furtherc* for *futharc*. The binding, however, is unworthy of the excellence of the contents. H. MARWICK.

DIE NORMANNEN DER WIKINGERZEIT UND DAS LADOGAGEBIET.

By W. J. RAUDONIKAS. *Vitterhetsakademiens Handlingar* 43 : 3. Stockholm, 1930. pp. 151 with 123 figs. and map. 10 kr.

Aldeigjuborg, the Viking stronghold on the upper Wolchow close to Lake Ladoga, was the starting point of the Swedish commercial and military enterprise in Russia that led ultimately to the foundation of the vast Swedo-Russian principality of Kiev. Dr Raudonikas of Leningrad had therefore a useful and an important task before him when he set out to describe in book form the archaeology of this settlement and of the southern Ladoga lands. It is admitted that a good deal of hard spade-work has still to be done, but the results already achieved are by no means negligible, and Dr Raudonikas has certainly succeeded in providing an interesting supplement to our imperfect historical knowledge of this region in Viking times. There is no doubt, of course, of the existence of a fortified settlement at Staraja Ladoga, and the identification of this with Aldeigjuborg is well nigh certain; moreover antiquities of Swedish origin have been recovered from its oldest stratum, so that the presence of Swedes here when the site was founded in the 9th century may be taken as proved, this being what the written record had led us to believe. A number of tall barrows, the 'Sopki' of Wolchow type, may possibly be the graves of the early Viking population, though we know all too little about their contents; but as to the other and less imposing barrows of the Ladoga neighbourhood, Dr Raudonikas prefers to call them Finnish, while admitting that they do nevertheless contain much material from Uppland. 'Natives', he says, were buried here, namely the

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Wepsen of Finnish stock, and on this view the Swedish brooches and arms deposited in these barrows must be regarded simply as lawful profit obtained from the busy Swedish traders for whom their land was a thoroughfare. The book gives us an inventory of the barrows, an excellent folding map, and good illustrations which include some important grave-groups that ought to rejoice Herr Petersen's heart ; but there is no index (how often are we to complain of this ?) and not even a proper list of contents.

T. D. KENDRICK.

THE ARCHAEOLOGY OF MIDDLESEX AND LONDON. By C. E. VULLIAMY. *Methuen, 1930. pp. 304, with 59 illustrations and 2 maps. 10s 6d.*

This is an excellent book. The author surveys the archaeology of Middlesex and London from the beginning of the Palaeolithic Age to the Norman Conquest, detailing all the important objects and sites found in that area, and summarizing our existing knowledge of the various phases of prehistory. His cataloguing is complete, and his descriptions of objects clear and concise ; moreover his style is excellent and makes enjoyable reading. Those who are only mildly interested in prehistory will, we are confident, find their interest stimulated after reading through this book ; while genuine students of prehistory will make room for it on their crowded shelves.

We should have welcomed more illustrations ; but the price of the book is very low, and we have already ample value for our money.

R. C. C. CLAY.

ST. ANDREWS CATHEDRAL MUSEUM. By D. H. FLEMING, LL.D. *Edinburgh : Oliver and Boyd, 1931. pp. 270, with 129 figs. and 2 plans. 25s.*

Dr Fleming, the hon. curator of the Cathedral Museum at St. Andrews, has here produced a fully annotated catalogue of the objects preserved therein, and is to be congratulated on a very complete and satisfactory piece of work. The chief interest of the museum is in the remarkable collection of carved Celtic stonework found from time to time either built into the cathedral or in the adjacent cemetery. Many of these were described by Mr Romilly Allen in his *Early Christian Monuments*, but fully a score have been recovered since the appearance of his book in 1903. It is rather a pity that the author has made no attempt to indicate the date of this extremely valuable series, which must cover several centuries. One supposes that the earliest examples are those showing scrolled foliage and degenerated vine-ornament which descends from Anglian originals, and that the flat but accomplished carving of the splendid sarcophagus (no. 1) is comparatively late in the series. The general level of the carvings, whether on flat slabs or cross-shafts, is remarkably high, though the motives, diagonal fret, spirals and interlacement are little varied. All the examples are fully described and illustrated. The later sections of the book are devoted to medieval and post-Reformation memorials, architectural fragments and small objects. Of these sections the longest and most important is that dealing with 16th and 17th century tombstones. Some 66 of these are described and many of them figured, and though in no sense a high form of art, they form a highly attractive exemplar of the taste of the age, which is far more florid than the contemporary English style, and is still drawing some of its inspiration from continental sources. An account is given of the very complete collection of casts of the ecclesiastical seals of the diocese of St. Andrews and minor foundations in the city.

The book is well produced and we hope it will incite other similar institutions to follow so admirable an example.

A. W. CLAPHAM.

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THE CIRCLE AND THE CROSS : a study in Continuity. By A. HADRIAN ALLCROFT. Vol. II, The Cross. Macmillan, 1930. pp. 454, with illustrations. 12s 6d.

The first volume of this work appeared in 1927, and was reviewed at length in *ANTIQUITY*.* Much to the regret of all who knew him the author did not live to see the second volume published, having died at Hove in December 1929. The main purpose of these two volumes is to show 'the development of the moot from the round barrow, the *locus consecratus* from the moot, and the church from both'. How far the author has succeeded in proving his case may be a matter of opinion, but that he read widely and drew upon a large store of learning, and treated the subject with great sincerity, there can be no doubt.

The first volume was mainly concerned with the development and evolution of the circular moot from the round burial place or barrow. The second volume attempts to prove that the circular form of the early Christian churchyards was likewise due to a development from the round barrow. The author calls them Celtic barrows, and apparently maintains that the development is due to insistent 'Celtic' influence in Ireland, Wales and England. The force of the argument for continuity from the round barrow depends much upon the date assigned to the barrows. Those familiar with the first volume will know that the author's views on this subject are much at variance with those generally accepted.

These views may be gathered from the fact that it is claimed that 'the true disc-barrow, together with the character of its contents, goes to show that this type was the work of the last of the Brythonic invaders of South Britain, the Belgae, who made their headquarters on Salisbury Plain, and thence spread eastward and northward, and more particularly westward into Dumnonia and South Wales. If so, the type was at its zenith of prevalence about the Christian era'. (Vol. I, 40). It is stated (p. 423), that appendix A, 'The Chronology of Barrows' was under revision by the author at the time of his death and had to be omitted. This is to be regretted as the strength of the argument for continuity depends much upon the period that the author ascribed to the various forms of round barrows. It is claimed that the continuity from the round barrow to the Circular Christian churchyard is more clearly traceable in Ireland and Wales than in England. If there is the continuity in Ireland and Wales that is claimed, it seems more likely to be due to the pre-Celtic elements there, than to the Celts, *i.e.* people of the Iron Age. There seems little evidence that the invading Iron Age people particularly favoured circular burial places. So far as the circular form in England is concerned it seems more likely that it was due to the influence of Christian missionaries from Ireland and Wales than directly to the 'continuity' of the round barrow form in this country. The last chapter discusses the derivation of the word 'Church', and the argument is thus summarized. 'In as much as the Irish *Kil* and the Welsh *llan* denoted originally no building at all, but merely a precinct, it is not unreasonable to surmise that the Saxon *ciric* also, whatever its derivation, meant originally much the same, meant the "churchyard" rather than the "church"; and there has been adduced abundant evidence that it was so. Further it has been shown that wherever Scotie Christianity went the burial-ground was originally of circular plan. *Ciric* therefore meant in the first instance a circular burial-ground, a round barrow. The inference is that the word *ciric* and *circular* are related one to the other. As "circular" derives

* September 1928, pp. 364-7.

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from *circulus*, and that from *circus*, it is to the latter that archaeology points as the true source of the word *ciric*'. (p. 399). This is a matter that must be left to philologists. There is a good index in volume II, covering both volumes. M. E. CUNNINGTON.

MANUEL D'ARCHÉOLOGIE ORIENTALE. Par DR G. CONTENAU. Tome II. Histoire de l'Art. III^e et II^e millénaires avant notre ère. Paris: Auguste Picard, 1931.

An extensive knowledge of bibliography, the rare combination of experience in field work combined with the practice of a Museum Curator, used as the basis of a sane artistic criticism—these qualities have produced an encyclopaedic work which will remain the standard for reference on the Near East in ancient times, perhaps for as long as the Perrot and Chipiez we have all used. This second volume, taken with the odd hundred pages of the first which were not concerned with the necessary preliminaries, deals with each land by itself, and treats of the objects by classes. Every kind of archaeological student will find in it information relevant to the subject of his enquiry, and the references which will enable him to pursue the subject.

As we expect from Dr Contenau, every kind of view is noted on the various subjects, but his sanity leads him to avoid impossible hypotheses. Though he had not access, at the time of writing this volume, to the striking results of the German excavations at Warka, he has rightly discarded the chronology favoured by some recent authorities, in defiance of the published results of field work, for the earliest age in Sumer. Though we must think in indeterminate periods, rather than in measured spaces of time, the succession of civilizations is now clear—1, that marked by the use of pottery decorated with a black ferrous oxide paint on a cream clayslip or buff ground; 2, that marked by pottery with a surface painted red and burnished, sometimes picked out with geometrical patterns in black and white—also by the use of a small rectangular brick, and, apparently, at Warka, in the earliest of four clearly marked building strata, by massive stone foundations; 3, that marked by plain pottery, rarely painted with concentric circles or edge-lines, sometimes incised or ornamented with rough *appliqué* work, and by the use of plano-convex bricks—the archaic Sumerian. The sculpture of this third period Dr Contenau examines in great detail. He recognizes the essential identity of these figures extending over an area from Ashur in the north to Susa in the south, and divides them between two points of time, about 3000 B.C. to 2900 B.C. Anyone who reads this chapter carefully will find in this class of figure a difficulty which is inherent in the archaeology of Babylonia. There are few reliable criteria. Many features which might seem to be criteria—features of dress, hair-dressing, the wearing of beards etc.—prove not to be so when reliable evidence from inscriptions is available. At present the only safe guide is the style, and where the style of all is primitive, the difficulty of the study is obvious. Dr Contenau's judgments will in general meet with assent, but details must remain open for discussion. The present writer for instance cannot believe that the cross-legged statue in the Ny Carlsberg Glyptothek (fig. 376) is later than the rather sophisticated little woman in the British Museum (fig. 367). The section on the sculpture of the Gudea period is very full and valuable, and the treasures of the Louvre from Susa, many of them previously unpublished, make the book indispensable. On Syria and Palestine Dr Contenau also has much of value, and much that is new. His attributions are again cautious and acceptable.

It is inevitable that in a book of such wide scope there should be some mis-statements

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of fact and many doubtful points. These are commendably few and will in most cases be immediately corrected. We are very fortunate to have this work, now well on the way to completion, on our shelves.

SIDNEY SMITH.

FOUNDATIONS OF BIBLE HISTORY: Joshua, Judges. By JOHN GARSTANG. Constable, 1931. pp. vii, 423, with 73 plates and 19 maps. 20s.

As Director, for seven years, of the British School of Archaeology in Jerusalem and the Department of Antiquities in Palestine, Prof. Garstang acquired an extensive first-hand knowledge of the ancient sites of the Holy Land and their topographical relations. It is not therefore surprising that he became fascinated with the old and still unsolved problems of the Israelite invasion and the subsequent settlement of the tribes in their new inheritance. The moment was opportune. Palestine today is receiving its full share of attention from archaeologists and explorers, and every year sees notable additions to our knowledge of its buried secrets. On the other hand it may fairly be asserted that the Higher Criticism's appraisal of the earliest documents of the Old Testament has reached a stage beyond which it is little likely to move. If any certainty is ever to be attained about the vexed questions of Israel's entry into Canaan, it must be by applying the test of fact, archaeological or topographical, to those narratives which have been adjudged by scholars to be the oldest and most reliable.

It is to this task that the author addresses himself, and though many of his conclusions are unlikely to commend themselves to that school of thought which still regards Merneptah (c. 1225 B.C.) as the 'Pharaoh of the Exodus' they certainly constitute a weighty challenge to that long-established theory. Prof. Garstang, in fact, believes that his excavations on the ancient sites of Ai (Et Tell), Hazor (El Kedah) and, more particularly, Jericho (Tell El Sultan) point to the destruction of these places at about 1400 B.C. But this, as he points out in an interesting study of the chronology preserved in Judges, accords well with the traditional date of the invasion of Canaan by Israel under Joshua. A similar conclusion appears to be reached by an examination of the other sites mentioned in the oldest strata of the Biblical narrative, while a careful investigation of the topographical details of Joshua's campaigns reveals an astonishing accuracy of description on the part of the ancient writers. There is, in short, plenty of evidence that they were by no means incapable of preserving a reliable tradition of their nation's earlier history. Given this reliability, however, certain important conclusions follow, and the author faces them without blenching. If the earlier dates of the Exodus and the Invasion are to be retained, the period of the Judges must coincide with the Egyptian domination of Palestine, of which no mention is made in the Bible at all! It may at first sight appear impossible to maintain such a position, but Prof. Garstang is prepared to demonstrate not merely that it is highly credible but that, in fact, the vicissitudes of Israel during this period are interpretable with singular consistency, in the light of the equally irregular vicissitudes of Egyptian rule between 1400 and 1100 B.C. Here again staunch upholders of the later dating will probably deny that he has made out an overwhelming case for his thesis. It is however quite indisputable that the 'coincidences' are strangely numerous and striking, and until or unless a more credible explanation of them is discovered, the theory advanced by Prof. Garstang must receive very careful and serious attention. Certainly it cannot be doubted that the illumination which is thereby thrown upon the old disjointed exploits of the Judges will secure for it many adherents.

Enough will have been said to indicate that we have here a work of first-rate

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importance which no student of the Bible can afford to ignore, and which, merely as a work of reference, will not soon be superseded. The book is excellently printed and indexed, well-provided with maps, and profusely illustrated with the author's photographs. For the benefit of the general reader the archaeological and topographical material has been separated from the historical survey and collected into an Appendix which, with its plans and bibliography, will be found indispensable by the more advanced student. There are several imaginative but striking black and white drawings by Miss G. Levy and Miss M. Ratcliffe which will help to excite the interest of a wider reading public.

W. J. PHYTHIAN-ADAMS.

WELTGESCHICHTE DER STEINZEIT.¹ By O. MENGHIN. *Vienna: Anton Schroll and Co., 1931. pp. 648, with 7 maps and 1029 figures. 40 gold marks.*

Some idea of the substance of the magnificent volume before us can be gathered from the fact that its composition took Professor Menghin of Vienna 10 years of intensive labour to complete, and that the works of no less than 610 authors are cited in the index. The great importance of the work lies in the fact that here for the first time the manifestations of stone age civilization are treated as an organic whole regardless of time or space. In analyzing each culture and fitting it into an organic system Menghin has created order out of chaos, while cutting at the root of previous systems of a more provincial order. Whether or not his system will find ultimate acceptance in all its details—and the wide gaps in the field of knowledge render this unlikely—it is certain to exert an important influence on the future development of the subject.

As a natural corollary of his method of treatment Menghin has been compelled to adopt a new terminology of universal application, in place of the time-honoured hash of French place-names provincial in both space and time. In the new terminology three major divisions are recognized, the old Lower and Middle Palaeolithic being grouped together as 'Protolithic', the Upper Palaeolithic and Mesolithic as 'Miolithic', the 'Neolithic' continuing as usual though now including the old Aeneolithic. The Eolithic industries are not admitted within the system as a group, though the Mesvinian is placed in the Protolithic blade industry. The East Anglian industries are dismissed on general grounds as probably natural, though the arguments used hardly seem to be valid in the case for instance of the Foxhall floor, which was found insulated in sand and associated with undivided bivalve shells. The real reason² for the rejection of these industries is the theoretical one that 'es nicht für wahrscheinlich, dass man solche auf europäischen Boden machen wird, sie sind viel eher im zentralen Asien zu erwarten'! Instead we are to be content with a pre-Protolithic wood culture, the occurrence or non-occurrence of which stands clear of objective proof.

The Protolithic is made to fall into three types of industry—blade, core and bone. The progress of research in recent years has compelled the recognition of blade (or at least of flake) industries contemporary in age with the familiar lower Palaeolithic core industries. The mass of evidence brought forward therefore by Prof. Menghin from Africa and Asia as well as from Europe only serves to underline what Breuil and others had already recognized. The obvious genetic relationship of the developed Mousterian to

¹ This is a book which should be translated into English, and we hope most earnestly that some publisher will undertake it.—EDITOR.

² There are of course many other reasons for rejecting them.—EDITOR.

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the earlier Clactonian, and Levalloisean flake industries accounts for the elimination of the familiar middle Palaeolithic as a separate period. In drawing attention to the less familiar Wildkirchli and Veldener cultures, and postulating a separate group of bone industries of Protolithic age, a new contribution has been made to the subject. As if to silence any doubts as to the industrial trinity of the Protolithic we are given a daring explanation which it must be confessed is very convincing. The three industrial traditions reflect different general modes of life ; thus the blade industries indicate a culture dependent on daggers and lances, and adapted to life on the steppe, the core industries denote an axe and club culture adapted to tropical forests, and the bone industries an absence of flint and a highly nomadic life. If we consult the excellent map showing the zones of influence of the different traditions during the Protolithic we shall see for example that whereas the Mongolian steppes abound in blade industries, they are devoid of core industries, which on the other hand crowd the interglacial tropics ; the bone tradition is found over northern Siberia with penetrations into eastern Europe, a region in which the extreme climatic fluctuations compel great seasonal migrations.

In the Miolithic the same three industrial traditions are traced for us. The blade industries are treated under no less than ten geographical zones, and include besides the upper Palaeolithic, cultures such as the Tardenoisean and Swiderian, which under the older terminology would have to be considered as early Mesolithic. The genetic relationship between the upper Palaeolithic and the earlier Mesolithic of the old terminology has in the past been especially stressed by Obermaier. In distinguishing the core tradition at least in the earlier stages of the Miolithic greater difficulties are encountered, though in Europe we have for instance the Ondratitzian, Predmostian, and Mezynian cultures. The developed Solutrean is held to belong to the blade group though showing influence from the core tradition. Mr Burkitt has in this connexion long ago claimed the laurel leaf as the product of contact between the two traditions of blade-and-burin and core industries, which explains the ubiquity and apparent spontaneity of its occurrence. The later core industries of the Miolithic include the familiar Campignian and Kitchen Midden of Europe and the early Tumba culture of West Africa. The system thus affords an explanation of the tranchet axe and pick in connecting it with the old Protolithic core tradition. An interesting typological link is the tranchet blow, which as a method of obtaining a sharp edge was frequently employed by the makers of Protolithic coups-de-poing. The bone industrial tradition once again is found wide-spread over northern Eurasia, and includes cultures usually assigned to the old Mesolithic, such as the Kunda and Maglemose cultures. The whole of the Mesolithic is thus finally engulfed in the later half of the Miolithic. We may perhaps be permitted some regret at the loss of a term which covered the embarrassment of a past generation of prehistorians, since locally at least the closing stages of the Miolithic with its climatic changes and altering modes of life do seem to require some terminological label of their own. That both the Protolithic and the Miolithic should reveal the same three industrial traditions, each with a similar distribution in both periods, cannot well be due to chance ; it is suggested by the author that we are in fact dealing with continuous traditions. An unexplained transition is the very real one from the Protolithic flake to the blade-and-burin industries of the succeeding period.

Before passing on to review his treatment of the Neolithic we must point out Menghin's device for overcoming the difficulty involved in dealing with 'culture lags'. Under his system, which he calls 'Phaseological Chronology', all cultures grouped together belong to the same phase or major period ; any culture in an outlying area which survives

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contemporaneously with the succeeding major phase is placed in its correct phaseological group with the chronological qualification 'epi'; while a culture surviving into the second succeeding stage is qualified by the term 'opsi'. Thus a culture grouped as Epiprotolithic is a true Protolithic culture surviving into Miolithic times, while an Opsiprotolithic culture is a similar culture surviving into Protoneolithic times. Thus the Tasmanian flake culture is designated Epi- or Opsiprotolithic, an indication both of its phaseological significance and of its chronological position. In his consideration of the absolute dating of the Miolithic, Menghin leans strongly on the side of a low rather than of a high dating.

Turning to the Neolithic, Menghin distinguishes a Protoneolithic, and a Mixoneolithic, in the latter of which the Neolithic arts found their full expression and metal was already in partial, though subordinate, use. The old Aeneolithic is dismissed as a mere phantom without any foundation on analysis. Taking the Protoneolithic we find once again a threefold division, this time based more directly on varying ways of life; thus we have groups of cultures based on the domestication respectively of swine, cattle, and beasts of burden. That based on swine is thought to have been cradled either in India or China, and reveals itself through the axe with round section (*walzenbeil*) in its western and mat pottery (*mattenkeramische*) in its eastern division. The typical axe in association with pigs' bones occurs for example in the upper strata of the Danish Kitchen Middens, and generally throughout western Europe, and North and West Africa; while the mat pottery complex is found chiefly in China, Indo-China, and northeast India. In Anau I we have the culture of the cattle breeders who are thought to have been cradled in western Turkestan and whose lithic industry was based on the flake. Finally the folk who first domesticated beasts for transport, horses, camels, asses, etc. are thought to have dwelt in central Asia, though their existence is mainly presumed from the later Mixoneolithic steppe cultures. The three Protoneolithic culture-groups are claimed to maintain the industrial traditions respectively of the core, flake, and bone divisions traced throughout the Proto- and Miolithic.

Finally we are introduced to the Mixoneolithic which once more exhibits a threefold aspect, the cultures falling into three main groups: the village, the city, and the steppe. The village peasant cultures are thought of as the result of the fusion of swine and cattle rearing cultures, the primary cultures of the East arising as a direct result of the admixture, the secondary cultures of the West resulting partly from the diffusion of the primary village and partly from weak radiations from the city cultures; the village cultures of North Africa and the Eastern Mediterranean are regarded as intermediate. The city cultures, many of which contribute early to the pages of written history, are to be regarded generally as advanced editions of the village type of culture, though they are to be distinguished by the fact that they represent the fusion of elements from all three of the Protoneolithic culture-groups. Prof. Menghin would regard western Turkestan as the primary home of the city cultures, all others,³ including presumably the Nilotic, being regarded as secondary. The steppe cultures came into being when nomadic horse, camel, or ass breeders, took to cattle breeding and borrowed many of the arts of life from the village and city cultures, without however abandoning their traditional nomadic form of life.

In the formulation of the system just outlined many assumptions of a controversial kind are made with which we have not the space to deal. If we have any criticism to

³ 'Alle übrige Stadtkultur ist sekundären Characters', p. 470.

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make, it is that the author has in several places tried to make altogether too much of cultural traits which are useful to his system; thus we feel somewhat shaken when on page 473 we read of the adventures of the spiral motive of the Danubian province, which spreading by the Aegaeon and the ancient East, reaches China, Japan, Indo-China, finally to be born over Oceania by the Polynesians. The professor doubts the jump to America, but adds; 'Aber warum nicht, da doch auch der mexicanische Kalender aus Ostasien stammt?'.

The stimulating chapters in which the evidence of Ethnology, Philology and Physical Anthropology are related to Prehistory in general and Professor Menghin's scheme in particular can only be mentioned here. The reviewer confesses to a feeling however that the enduring part of the book is contained in the first 477 pages in which the new system is unfolded. The final chapter 'Universalgeschichtliche Zusammenfassung Und Kulturphilosophische Ausblicke' brings the work to a fitting Teutonic close. The multiple indices are excellent.

J. D. G. CLARK.

LO-LANG: a report on the excavation of Wang Hsü's tomb in the ancient Chinese colony in Korea. By YOSHITO HARADA, *with the collaboration of KINGO TAZAWA. By order of the Faculty of Letters, Tokyo Imperial University. Tokyo: The Tokoshoin, 1930. pp. 148 and 128 plates. Texts both in English and Japanese. \$17.50.*

Ever since 1925 when the Faculty of Letters of the Tokyo Imperial University excavated the Lo-lang burial mounds of Korea, the archaeological world, as well as students of Chinese culture, has been waiting for the complete report. With the publication of this book the full significance of the investigation is realized. The tomb of the Chinese official, Wang Hsü, which is believed to be over two thousand years old, yielded besides human remains various utensils for food and drink, toilet articles, personal ornaments, silks, coins, mirrors, lacquer work of high quality, and above all a wooden seal of Wang Hsü, which serves to identify and date the tomb in a manner unprecedented in Oriental archaeology.

In the year 108 B.C. Wu Ti (156-87 B.C.) vanquished the Wei family of Korea and established four provinces, one of which was Lo-lang, a district in the vicinity of the present-day Seoul. Lo-lang thus became a Chinese dominion, and in spite of frequent changes the colony remained intact till the early part of the Tsin dynasty (A.D. 265-420). All the material civilization of China proper was introduced there and formed a cultural centre of the Han dynasty (205 B.C.—A.D. 221) in Korea.

The necropolis of Lo-lang, according to the investigations of the Government of Korea, has no less than 1386 burial mounds. Since 1909 there have been a series of excavations, each yielding a variety of new material. In 1925 one burial mound was found with three wooden sepulchral chambers. The main room had three wooden coffins. The chambers and coffins were in a perfect state of preservation, and the greater portion of the articles found retained their original form. The coffins are of a rectangular box-shape, lacquered inside and out. Some are decorated with paintings of birds in lacquer. In regard to the structure of the chamber and coffins, there is in the main very little difference between those found in Lo-lang and the Hun tombs in Outer Mongolia excavated by Kozlov. (See *Comptes rendus des expéditions pour l'exploration du nord de la Mongolie*, Leningrad, 1925).

The most significant part of the book is the section that deals with individual articles found in the sepulchral chamber. Utensils for food and drink, such as lacquered bowls,

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dishes and trays, pottery jars and cylindrical vessels, are numerous. An oval lacquered bowl with a handle on either side, one of which is missing, is red inside and black outside, and it has the incised inscription of 55 letters filled in with white. It was made in A.D. 45, in the reign of the Emperor Kuang Wu in the Later Han. There are three other dated lacquer wares, one dated A.D. 52 and two dated A.D. 69. Many articles bear two characters, made not by the lacquer artist but probably by the friends of the deceased, for two characters mean 'Good luck to Wang'. These articles are from the tomb of Wang Hsü.

Toilet articles and personal ornaments also are abundant. A toilet-box with four smaller boxes fitted inside is very much like the one shown in a scroll-painting attributed to Ku K'ai-cheh of Tsing (A.D. 265-323) now in the British Museum. The small boxes contain a quantity of white powder, pulverized talc and native carbonate of lead, and a powder-brush. Wooden combs, tortoise-shell hairpins, bronze mirrors, and a pair of glass ear-ornaments throw much light on the life of women.

Lacquered shoes, silk cords, lozenge-patterned thin silk, a coral bead with carving of a ram, a set of divination boards with ten calendar signs, 12 signs of the zodiac, 28 stars, and a drawing of the eight trigrams, all pertaining to astronomy or direction, and a few jujube and other fruit-pips, are all very significant as they provide material that give clues to the manners and customs of peoples whose written records are not explicit. For example, it is often said that Taoism swayed the minds of the people in this period so much that the figures of Taoist divinities formed a favourite motif, but of this period we possess few concrete objects and had to be content with vague written statements. Now, however, the finds in these tombs reveal Taoist immortals represented on the decoration of common everyday lacquer wares. Or again, no one doubts that the art of divination permeated the mind of the ancient Chinese, but we had little idea of the actual method. Now the disc and the square pieces found in the tomb lead us to imagine that the disc was held by a pin on the boards and revolved when in use. A carved design of a ram and a comb decorated with Scythian designs, resubstantiate the relations which existed between Hun and Scythian cultures, and a girdle ornament of gold shows Sarmatian technique. Glass ear-ornaments in the tomb indicate Roman influence. Indeed all that the written records tell of the cultural contacts between the Occident and the Orient is conclusively proved by these discoveries.

The book is most beautifully illustrated with photographs, many of the actual size and in colours.

SHIO SAKANISHI.

HANDBUCH DES DRUIDEN ORDENS. *Von* HUGO WIESE *und* H. FRICKE. Dritte Auflage 1931. *Von* HUGO WIESE, G. ADOLF STOLL *und* DR. KARL ROEDER. *München: Carl Gerber. pp. 295, with 11 plates. 5 marks.*

To all who are interested in Modern Druidism this is a very valuable book. The first part contains what may be called the basis of the articles of faith of the Druid Orders and more especially that of the German branch. All these societies and especially the parent, the English A.O.D., still cling somewhat tenaciously to the eighteenth century ideas on Druidism with the result that they profess far more than is warranted by modern knowledge. Despite careful and cautious compilation the existence of the old leaven still betrays itself.

The second half of the book is of very real historical value; all the available material for a history of the origin of all the Druid Orders throughout the world has been carefully collected and the result is a reliable book of reference on the subject.

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The Ancient Order of Druids was founded in 1781 by a man of the name of Hurle and his personal friends. Who he was is not positively known but the writer, after several years of research, is of opinion that he was probably one Henry Hurle, a carpenter and builder, who set up business on Garlick Hill in the City of London in 1769 and who, for 13 years before his death in 1795 sat on the Court of Common Council for the Ward of Vintry.

The original idea was a 'Secret Society' to which only personally recommended persons could be admitted and from which all religious and political discussions were sternly excluded. The founder probably owed his inspiration to the writings of Dr Stukeley. At first the A.O.D. was not a Benefit Society, though the giving of a helping hand to brethren in distress was one of its tenets. In 1833 a split occurred in the Order on this question and a large body of the members seceded to form a definite Benefit Society with the title 'United Ancient Order of Druids' and all the daughter societies throughout the world are now constituted on this basis. The parent society continues to flourish more or less on the old lines but has developed a voluntary Benevolent fund and engaged in other kindred activities.

The Druid societies in the United States, Australia and Germany are large and flourishing organizations as is also the English U.A.O.D. All have an initiation ritual based more or less on that of the parent Society drawn up by Hurle and in this sense are 'Secret Societies'.

To those seeking historical information this book is indispensable and is indeed the only one in which it can be found set out in full. W. NORTH.

DOLMEN NECROPOLIS NEAR KERAZEH, GALILEE: Excavations of the British School of Archaeology in Jerusalem, 1930. By F. TURVILLE PETRE. *P.E.F. Quarterly*, July 1931, 155-166, with 5 plates.

This is a very inadequate account of the examination of no less than 24 dolmens. It is evident that the work described was carried out carelessly and unscientifically.

The writer gives no dimensions at all for the 'tumulus' which in some cases covered the dolmen—the said tumuli being apparently cairns, to judge from the photographs. He also mentions casually in his summary (p. 162) that some of the tumuli seem to be built up in 'concentric terraces' but he is quite silent on this matter in his detailed descriptions of each monument. Instead, superfluous details of dimensions are given—or details which should have been superfluous if any of the plans or sections had had a scale attached to them. Incidentally, these plans and sections, bad as they are, are unnecessarily made worse by the adoption of a different convention in each for indicating stones shown in section.

Is it a fact that nobody used flint in Palestine after the Bronze Age? If not, why not? Nothing is said about any but Roman pottery. Is this because none other was found, or because that was the only pottery the excavator could recognize? There are no drawings or other illustrations of potsherds but the illustrations of the other objects published are quite good—as photographs.

On p. 161 the plans and sections cannot be made to agree with each other. On p. 163 (line 8) he refers to 'the entire absence of burial remains', but he also refers to fragments of bone—'calcinated' (p. 161 last line), 'split' (p. 160, bottom), 'fragments' (p. 158). Were these human or animal? If merely animal, why not say so?

These criticisms are not made without reason. For instance the omission of any

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account of the 'terraces' referred to already is regretted because there are traces of the same feature above at least one of the Arles 'grottes' (see *Archaeologia* LXXVI, p. 158).

It is all horribly reminiscent of the bad old times, when dolmens were hogged, 'British pottery' was dismissed with that label, and minute and unnecessary details were given of capstones. We can do better than this nowadays in England, as the excavations of Capel Garmon, Bryn Celli-ddu and Belas Knap have shown. Surely the Government of Palestine can see to it that the monuments in its charge (as these presumably are) are not ravaged like this under the auspices of the British School?

ON AN ADOLESCENT SKULL OF *SINANTHROPUS PEKINENSIS* in comparison with an adult skull of the same species and with other hominid skulls, recent and fossil. By DAVIDSON BLACK. *Palaeontologica Sinica*, series D, vol. VII, fascicle II. *Peiping (Peking)*, 1931. pp. 114 and 16 plates. Price not stated.

In this extremely attractive and beautifully illustrated volume Dr Black has given us a definitive account of the young Peking skull which he has labelled 'locus 2 specimen'. With that care and enthusiasm which has been characteristic of all his work the author has given us from time to time interim reports showing the progress of his studies, and he must be heartily congratulated both with the way in which he has kept the scientific world in touch with what he has been doing and for the speed combined with the thoroughness with which he has now produced a report which is final, except for a study of the endocranial cast.

The present report is highly technical. It is in a very real sense complete. Unlike many anthropologists who are content with vague measurements or with a loose description of their technique, Dr Black describes in detail all his work, and he does not hesitate to use more than one method if several are current, in order to facilitate accurate comparison. A careful examination of the report leaves the reader in no doubt that all the data needed, unless we entirely alter our anthropological methods, have been tabulated here. The title, however, is one which may well make bibliographers tear their hair. We frequently have to consult books like this one, and we want to know where to look in our libraries. On the heading of this review the title has been given; what it will become in the hands of those who have to make bibliographical card indices the future will show, but it seems that, when one does go into a library to consult this monograph, the chances of getting it—and not one of its companions—first shot are somewhat remote. Further, be it noted, only a part of the title page has been printed above; there is a great deal more, and such essential things as the price are not stated. Secondly, though one cannot but admire the skilful thoroughness of the report, there is an omission which will be deplored by most readers of *ANTIQUITY*. The data are absolutely essential for a small body of technical persons. But all who are interested in the ancient history of Man want to know Dr Black's own views on his own remarkable discovery. No one else has, or is ever likely to have, quite the same opportunities for knowing all about the skull; the laborious process of digging a specimen out of its matrix gives an intimacy with the specimen which cannot otherwise be acquired. We are more than interested in what others may have to say about the specimen, and Dr Black is no doubt hampered by the absence of libraries etc, in Peking, but for all that we want to know what he thinks about the specimen. He very justly states that as much material is yet undescribed, the time for speculation has not yet come. But surely it is not speculation we want but, in addition to the technical details, such general

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conclusions, and possibly such a non-technical description, as the keen amateur or the student can read and understand. Dr Black tells us, in his all too brief summary that 'the data . . . demonstrate beyond reasonable question that in the *Sinanthropus* specimens a type is represented differing profoundly from any of those represented by the Neanderthaloid, Rhodesian, modern hominid or anthropoid types'. It could have been wished that Dr Black had expanded this statement into as many pages or more than he has paragraphs. The Peking finds are really important. Here we have no chance single discovery but a series, exactly dated and numerous. They belong to a unique species, and the find itself, in its completeness, is unique. The technical reader will be profoundly grateful to Dr Black for his careful, accurate and complete exposition. The non-technical may regret that after catering for the professional the author has not seen fit to use that vivid and direct descriptive style which he can use, but refuses to.

L. H. DUDLEY BUXTON.

L'OLOGÉNÈSE NOUVELLE THÉORIE DE L'ÉVOLUTION ET DE LA
DISTRIBUTION GÉOGRAPHIQUE DES ÊTRES VIVANTS. By DANIEL
ROSA. *Paris, Félix Alcan, 1931. pp. XII, 368. 35 francs.*

The general theory expounded by the author in this volume that evolution proceeds usually is by way of dichotomy. The author does not believe that it is in any sense determined by changes in external conditions, nor does he think that a difference in external factors can be held responsible for any internal variations. Rather he holds that evolution is practically what may be described as a predetermined course in a group, not individuals, which follows as a matter of course when internal conditions have arrived at a suitable stage; much it would appear, if one may use an impossible analogy, as if a rock balanced evenly on a high place, immovable by wind or processes or decay, could grow unevenly until in the process of time it would inevitably tumble over. The author believes that differences in the fauna of different countries can be accounted for by comparing the dates of their emergence from the sea. Though doubtless much of the author's theories may not be accepted with approval by all, the problem is one of perennial interest, and his exposition, which is largely of a philosophical nature, is clear, logical and easily understood. The occasion of the publication in French is the veteran Italian scientist's 70th birthday, and all will welcome this clear and philosophical statement of his theories in a language which is more familiar to most Englishmen than the author's native Italian.

L. H. DUDLEY BUXTON.

A MAP OF XVII CENTURY ENGLAND, with Description, Chronological Tables,
and a Map of London, circa 1660. Scale: 16 miles to one inch. *Published by the
Ordnance Survey, Southampton. 6s., mounted.*

The Ordnance Survey has now issued a map of xviith century England. This necessarily differs materially from its precursor, the map of Roman Britain, and from its promised successor, Saxon England, because much research remains necessary before anything approaching a complete map of England in Roman or Saxon times can be produced. This does not apply to the map now under review, since it relates to a period much nearer to our own times for which not only contemporary maps, but a very material body of records are available.

It is in pursuit of a very natural inclination that one compares the maps of Roman

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and xviii century England in order to ascertain what changes some sixteen hundred years had wrought. One is struck by the extensive disafforestation which had already taken place by Caroline times. (Why has Windsor Forest been omitted? In 1607 it was over seventy miles in circumference). A second prominent feature is the draining of the East Anglian Fens.

Mining areas continued to be in much the same localities as they were in Roman times, except for some development of the iron ore wealth of the northern shires. Sheep rearing and cloth making were still, as in Tudor times, the most widespread occupations of the people, and here we have an interesting sidelight on the Civil War. The majority of movements of large bodies of troops was made through sheep country, where the flocks were a ready means of ration for those in charge of commissariat arrangements. It is recorded that Essex, on his march towards London after the relief of Gloucester, seized one thousand sheep between Cirencester and Cricklade from 'malignants and papists'.

This brings us to roads. These are stated to be based on John Ogilby's Survey of 1675, and it is probably in this respect that the map, if subsequent editions are issued, needs revision, since in its present form it is doubtful whether it gives an accurate representation of the main roads of the xviii century. The period depicted is one during which there were numerous movements of military columns, and it is a well-established fact that any movement of a large body of troops must be based on main roads, especially if the object of a march is to cover a considerable distance. The Irmin Way from Gloucester to Speen and Newbury must have been a main road in the xviii century since by means of it Essex hoped to reach London after the relief of Gloucester, and he followed it as far as Aldbourne Chase where he was diverted to Hungerford as a result of an attack by Rupert's cavalry. Nevertheless, the Irmin Way is omitted from the map, and so is the Fosse Way.

It is recorded that the Parliamentary troops, intended for the relief of Gloucester, marched from London by way of Bicester, Chipping Norton, and Stow on the Wold (presumably by the old Ferdestraete—army way), yet the map omits Bicester. If this town, which dates back at least to Domesday and which was famous for its fair has been left out, Banbury has been duly recorded as it deserves to be, if only for the old print which depicts a Cavalier watching the hanging of a cat by Puritans. Underneath is a legend which runs somewhat as follows :

To Banbury came I, O profane one,
And found them hanging of a cat on Monday
For killing of a mouse on Sunday.

There is one more criticism which applies both to this map and to that of Roman Britain. A more prominent type might advantageously have been used for words used to show the distribution of industry.

The xviii century map is prefaced by an excellent and concise account of the face of Stuart England by Professor G. M. Trevelyan; by an Outline of the Civil War; and by a useful chronological table of events and persons. In addition, it contains what will probably be of equal interest to the map, a plan of London about 1660, compiled from contemporary sources. This will enable the Pepysian to follow the diarist, in imagination, from Sayes Court to Whitehall, and the student of social history to ponder on London's development.

L. E. W. O. FULLBROOK-LEGGATT.

REVIEWS

CHURCHES AT JERASH. By J. W. CROWFOOT. A preliminary report of the joint Yale-British School expeditions to Jerash 1928-30. *British School of Archaeology in Jerusalem*, 1931. Supplementary Papers, 3. pp. 48 with 13 plates and 5 plans. 5s.

This preliminary report anticipates the full publication of results which is to be expected when the present excavations of classical buildings at Jerash are completed. It is indeed a revelation of the extraordinary wealth of material awaiting the excavator of early Christian antiquities in Syria. The often remarkable survivals of such buildings above ground have long attracted attention and the monumental surveys of Vogüé and Butler have made these survivals known to the world. Little investigation however, save in the neighbourhood of Jerusalem, has been possible until the years succeeding the War and these researches are amongst the first fruits of excavation devoted to this particular period. As the author observes they show how vastly superior were the structure and fittings of the town-churches of Syria over those less important structures which remoteness or chance have suffered, in whole or in part, to survive above ground.

Jerash, formerly one of the cities of the Decapolis and now represented by a Circassian village founded in 1878 in Transjordan, appears little in history. The ten important churches excavated are nearly all exactly dated by inscriptions and range from the middle of the 4th to the beginning of the 7th century. Their planning shows an extraordinary diversity and includes one fully developed cruciform building which, in the present state of our knowledge, forms a landmark in the development of the church-plan. The ritual-arrangements and fittings are even more remarkable and we have here revealed, in example after example, the disposition of the chancel screen and ambo and large stretches of the mosaic pavements laid down when the churches were built. These pavements themselves are remarkable for a delicacy of colouring and a florid richness of design which is quite unexpected. Altogether we must congratulate the combined expeditions and Mr Crowfoot, the director, on the rich harvest of their labours and the addition, in so short a time, of so great an increase in our knowledge of early Christian art. Mr Crowfoot has supplied a clear and succinct account of the individual churches, together with an excellent summary of their relative architectural and artistic importance. The report is illustrated by a series of admirable plans and photographs and two coloured reproductions of mosaics.

A. W. CLAPHAM.

GREECE AND ROME. Edited by the Rev. C. J. ELLINGHAM, M.A., City of London School, and A. G. RUSSELL, M.A., St. Olave's School, London. Published in February, June and October for the Classical Association by the *Clarendon Press, Oxford*. Annual subscription (for three numbers) 7s 6d. post free, single copies 3s. Vol. I, no. 1, October 1931. 64 pages, 5 plates. Size 9½" × 6½".

We print full details above of this attractive new journal, so that those who wish to purchase it may have no difficulty in making up their minds. It is primarily intended for teachers and 'has no intention of rivalling [those] grave and reverend seniors' the *Classical Quarterly*, *Classical Review* and the *Journals of Hellenic and of Roman Studies*. We do not think the promoters need have any misgivings on this point. 'Papers definitely devoted to original research will be excluded and dealt with, as hitherto, by the existing Journal of the Association'. The new journal will therefore, we imagine, occupy the same position in relation to the older ones that *History* does to the *English*

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Historical Review. That there is room for such a journal, the success of *History* has proved. We wish *Greece and Rome* long life and prosperity.

The present number begins with a foreword by Mr Cyril Bailey, and contains eight short and readable articles. Two are of the 'holiday haunts' type, which is what readers will expect to find here. By far the best is one, described by Mr Bailey as 'provocative', on New Valuations in Greek Art. We cannot share Mr Barton's preference for archaic sculpture, but we like his style and method of approach. It is absolutely right to admire 'the new unity of beauty and purposefulness in such creations as the *Europa* or a Daimler car—both of which a Greek would have admired to the point of rapture'—provided of course he were not a ship's cook or pedestrian. These things—and the latest aeroplanes might be included—represent the best creative work of the day, apart from some architecture which is still rather crude and archaic. But we feel less enthusiasm for the *archaistic*, not archaic, marble pigeon of Csaky and similar aberrations; being mindful of the aphorism that 'genuine art is always produced for current use'. On p. 19 there are some wise sayings which we should like to quote, relating to communal as contrasted with individual art. So long as *Greece and Rome* continues to provoke us with such lively sallies, the Editors can face the future and the rising generation with confidence.

Since this is an Oxford-and-Milford production, it goes without saying that it is well produced. We admire the cover nearly as much as we admire our own. We cannot, however, refrain from reminding the readers of ANTIQUITY that they get, in mere bulk, far more for their money than the readers of this and other journals. Assuming that the number of pages and plates in the first number of *Greece and Rome* is to be maintained in future issues, we find that for 7s 6d a year readers will get about 25,000 words and 15 plates. Readers of ANTIQUITY, for 20s a year get about 254,000 words and 90 plates. Reduced to a common measure of cost to the buyer, this means that we print 3.4 times as many words and 5.8 times as many plates in a year for the same money. We mention these facts, not at all to depreciate the new journal, but merely to show, what is often overlooked, that our method of production has advantages which the subscriber is apt to forget when he is asked for his subscription!

THE DOLPHIN IN THE LITERATURE AND ART OF GREECE AND ROME.

By EUNICE BURR STEBBINS. *Menasha, Wisconsin: The George Banta Publishing Company, 1929. pp.135. Cloth, 10s 6d., paper, 6s 6d.*

The writer of this dissertation was educated partly in Germany, where she seems to have learned thoroughness in the collection of *Fachliteratur*. The dolphin is considered zoologically (ancient and modern); his appearance in art from the Minoan period downwards is discussed and typologically classified (it is a pity that not even a few typical illustrations could be provided); his literary vogue is summarized. The writer makes it clear that the dolphin of antiquity is *Delphinus delphis*, the cetacean, not the sailor's miscalled 'dolphin', the fish *Coryphaena*, with which Mr Norman Douglas in his delightful book on the birds and beasts of the Greek anthology seems to confuse it. (I wonder whether the writer of this thesis has made the acquaintance of Mr Douglas' work?) That the epithet *σιμῶς* refers to the dolphin's forehead and not his snout seems to be supported by its application to kids; it is used also, of course, of bees. In riding on the dolphin's back to a doctorate, the writer has given us what is presumably the most complete Delphinology in existence.

W. L. CUTTLE.

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